COLUMBIA UNIVERSITY QUARTERLY

VOL. XIV DECEMBER, 1911 NO. 1

ALUMNI DINNER TO PRESIDENT BUTLER

ABOUT four hundred graduates of Columbia University gathered at dinner in the Waldorf-Astoria Hotel on the evening of Saturday, October 7, to celebrate the completion of the tenth year of Dr. Butler's service in the presidency of the University, the date selected being the exact anniversary of the trustees' meeting at which Dr. Butler was appointed acting president. The committee was composed of the following representatives from the alumni associations of the College and the schools of science, law, medicine, and architecture, and of the doctors of philosophy:

From the College

James Duane Livingston, '80
Girard Romaine, '82
Willard Vinton King, '89, treasurer

From Science

Charles Pike Sawyer, '81, chairman
Georges Renault, '83
Frederick Arthur Goetze, '05

From Law

William Dameron Guthrie, '80
Frederick René Coudert, '90
Harlan Fiske Stone, '98

From Medicine

Timothy Matlack Cheesman, '74
Lucius Wales Hotchkiss, '81
Samuel Waldron Lambert, '85

From Doctors of Philosophy

Frederic Ludlow Luqueer, '94
Rudolf Tombo, Jr., '01, secretary

From the Architects

Henry Frederick Hornbostel, '91

The gathering was one of the most representative ever held by graduates and former students of Columbia, and the alumni present vied with one another in expressing their affection for, and loyalty to, President Butler. The applause and cheers that greeted Dr. Butler when he rose to speak lasted several minutes, another hearty tribute being paid the guest of honor at the conclusion of his inspiring address.

At the close of the dinner, Mr. Sawyer, who presided as toastmaster, requested the secretary of the committee to read some of the many telegrams and letters of congratulation that had been received by the committee, a few of which are printed herewith:

Greencastle, Ind.

President Nicholas Murray Butler

Regret inability to attend dinner tonight. Wish to express grateful appreciation of your efficiency and devotion in serving Columbia and to extend my congratulations on this anniversary. I speak also for the many Columbia alumni in Indiana. We pledge our loyalty to you and to Columbia.

N. Waring Barnes, '03,
President Indiana Alumni Association

(professor of English composition and rhetoric in De Pauw University)

Denver, Colo.

The alumni of Colorado send congratulations to Dr. Butler and felicitations to the University with the hope that he may be spared for many years to contribute the work he is pursuing with such signal success. We wish we were with you to drink the doctor's health and bring with us our blue skies and white clouds to show New York how ever present and widespread Columbia's colors are here.

Richard A. Parker, '78 S,
President Colorado Alumni Association

Salt Lake City, Utah

The Columbia Alumni Association of Utah, the newest and best, sends its greetings and congratulations to Dr. Nicholas Murray Butler on his tenth anniversary as president of our *alma mater* and for the magnificent work accomplished.

C. H. Doolittle, '85 S,
Secretary Utah Alumni Association

Washington, D. C.

Hearty congratulations on the splendid ten years' service Butler has given Columbia.

Marcus Benjamin, '78 S,
President District of Columbia Alumni Association

Cornell University, Ithaca, N. Y.

. . . It would give me great pleasure to take part in so well deserved a tribute. The work of President Butler has been, in every respect, admirable, not only as regards the administration and development of your great University, but also in its effects upon the educational and social interests of our state and nation.

As one who has long admired him greatly, both in his public and private life, I wish to thank you for this recognition. But I have arrived at an age when I am obliged to resist temptations to take part in such festivities, attractive as they are to me, and, beside this fact, I am at present bound by various engagements which forbid my being with you.

With most hearty thanks for your invitation and with all good wishes that the tribute you are about to pay Dr. Butler shall be in all respects a cause of happiness to him and to yourselves, I remain,

Very respectfully and sincerely yours,

Andrew D. White

Plymouth, Mass.

. . . I look upon Dr. Butler's work in university building as one of the most significant achievements in American university progress. Our American universities have, in the past, been distinctly local in their aims and in their attitude toward scholarship. Dr. Butler has developed in Columbia not only a wholesome relation to our common school system, but an American university in touch with the scholarship of the world, and one which is appealing in increasing measure to Americans of all our states. Columbia seems likely under his leadership to be the type of modern urban university whose field is the world, for the university, of all modern organizations, can with greatest success give one hand to local causes and the other to those things which bind all scholars together. Long life and many years to the president of Columbia to carry forward this noble ideal.

Yours most sincerely,
Henry S. Pritchett

Boston, Mass.

. . . I wish, however, to express my pleasure and interest in the testimonial. President Butler has done much to make of Columbia University the foremost institution of higher learning in America, and one of the greatest in the world. His influence has always been constructive and progressive. He has kept himself closely in touch with all varieties of educational interest outside the University. In common with all other alumni I express my congratulations on this occasion, and wish him a prosperous future.

Very truly yours,
David Snedden
(Commissioner of Education, State of Massachusetts)

New Haven, Conn.

I am very sorry that engagements at home on October seventh prevent me from taking part in the dinner to be given to President Butler. His work for Columbia and for the cause of education in the country has been so great, that an acknowledgment of this kind is most appropriate, and I regret exceedingly my inability to take part.

Faithfully yours,
Arthur T. Hadley

Charlottesville, Va.

I send you my love and my congratulations upon the achievement of a great task with wisdom and foresight.

Edwin A. Alderman

Albany, N. Y.

Impossible to attend dinner. Columbia does well to give President Butler a dinner, for she owes it to him. Here is hoping that he may have plenty of them, may live long to enjoy them, and that Columbia may get the benefit of it all.

A. S. Draper
(Commissioner of Education, State of New York)

Medicine Hat, Alberta, Canada

Ashcroft weekly mail capsized into lake, demoralizing service, delaying my return four days, and denying me the pleasure of being present and doing honor to President Butler. Columbia, the committee, as well as President Butler are to be congratulated upon this well founded period of marked success. Appreciated at home, known and honored in the most conservative quarters abroad, he easily ranks as one of our foremost citizens. I greatly regret my inability to be present, and, speaking for the commercial and financial interests of our great state, express their approval of the great public service rendered by Columbia and her distinguished president.

A. Barton Hepburn (LL.D. 1911)

Sewanee, Tenn.

I thank you for the invitation to be present at the dinner to celebrate the tenth anniversary of Dr. Butler's presidency of Columbia and regret that I cannot be present. I am glad, however, at the opportunity to express my admiration of Dr. Butler's character and ability, and my profound appreciation of the great work he has done and is doing for the cause of education in this country, and I am,

Very sincerely yours,
Thomas F. Gailor (Bishop of Tennessee)

Athens, Ga.

Hearty congratulations upon the completion of your distinguished decennium. Assure the assembled alumni tonight that Georgia joins in grateful felicitations upon the illustrious services of Columbia under your guidance to American scholarship and American citizenship. Sincere wishes for your long continuance in health, happiness and usefulness.

H. C. White (LL.D., 1908,
professor of chemistry, University of Georgia)

Goettingen, Germany

Dem grossen Organisator wuenschen noch viele Jahre erfolgreicher Wirksamkeit

Klein (professor of mathematics) und Runge (professor of applied mathematics, Kaiser Wilhelm professor, 1909–10)

Fondation Thiers, 5, Rond-Point Bugeaud, Paris

Cher Président et ami,

Je reçois à l'instant, trop tard pour que mon mot vous arrive avant le banquet, l'avis de l'hommage que les alumni de Columbia University se proposent de vous rendre le 7 octobre prochain.

Permettez-moi de m'associer rétrospectivement de tout cœur aux sentiments qui vous auront été exprimés à cette occasion. J'applaudis bien chaleureusement au zèle si fécond que vous avez déployé pour le service de l'Université Columbia, des bonnes études et de la haute culture. Et je souhaite que, dans la voie où vous la guidez, Columbia University continue à faire de brillants progrès et à fournir au monde de glorieux et précieux exemples. Enseigner le rapport du présent au passé et du réel à l'idéal, c'est faire, au sens le plus profond et le plus noble du mot, l'éducation de l'humanité.

Nous espérons que vous et les vôtres continuiez à être en bonne santé. Nous nous réunissons pour vous adresser nos meilleurs souvenirs et nos meilleurs vœux.

Votre bien cordialement dévoué

Emile Boutroux (Litt.D. 1910,
professor of philosophy at the Sorbonne, Paris)

The first speaker was then introduced by the toastmaster in the following words:

Fellow graduates and others, not so fortunate, who came with them!

This is the tenth year of President Butler's administration, and it is a little less than that time ago when we met here to celebrate his inauguration—in the same way, with a dinner. I wonder why it is that so many big events are celebrated with dinners. Certainly not because we need the gastronomic bait to get together; but because there is a merriment, a friendliness, a taste of the old times when we were students together, in the clinking of the glass, in the smoking of the tobacco—I was going to say the cigarette, but I see a few cigars—which we were not allowed to do at forty-ninth street, if you will remember, and I believe they are beginning to cut it out up above, I don't know why. We are here to celebrate the growth of the greatest university on earth. Ten years ago there were three thousand five hundred students at Columbia. Today there are nearly eight thousand. We have at last passed Berlin. (A voice: No, a thousand times no.) I suppose with all these emblems of peace around us, that it is impolite to gloat over Berlin, in view of the remarks I just heard, and I will withdraw that eight thousand, I will make it seven thousand nine hundred and ninety-nine; I will even go further, I will take off another seven and make it the actual figures, seven thousand nine hundred and ninety-two. With that great number of students here at the university, I think we are entitled to what I claim, in spite of the remarks of the gentleman who favors Berlin, and congratulate ourselves on having arrived at that in only ten years, and in the next ten years we hope to double that.

As a matter of fact, the number would have been very much larger if it had not been for the unkindness of certain of the deans of the college, who seemed to think that a very large number of freshmen this year were not entitled to go on. They had passed one examination and they thought they would join the sophomore band. The result of this is that, through the too great fondness of these deans for studies, and through their lack of appreciation of the other things which go to make up college life, such as rowing—and that reminds me that we have with us this evening the assistant commissioner of education, whose boy stroked last year's crew—this sad state of affairs has been reached.

In introducing the first speaker I want to say that for more than thirty-one years he has devoted a great part of his time to Columbia University—and his sole reward has been love—together with that great band composing the corporation of Columbia University, who devote hours and days and weeks to looking after the interests of the University, who take care of a fund that is perfectly enormous, when you take into consideration that the funds have to provide a budget of two and a half million dollars every year, and, aided by the treasurer, they have succeeded in passing this year with a balance on the right side of the ledger, and that "friend of the University," who has been so kind in the past, has not appeared on the balance sheet this year as making up the deficiency. I would like to say, however, if that "friend of the University" is present, that there are other needs, and that our friend Nash would be very glad to accept a check, no matter how large, to aid in the filling of those wants.

I refer to George L. Rives, of the class of 1868, who has spent nearly a generation looking after the best interests of Columbia, devoting his time as no other man has. Gentlemen, Mr. Rives.

MR. GEORGE LOCKHART RIVES:

What is the use of my making a speech tonight? We all know Butler. We all know what he has done. We all love Butler, and I can not tell you anything about him that every Columbia man does not know already. We have known Butler at Columbia for more than a generation since he first came into the college; when he was editor of the college paper, when he was leader of his class, when he was a young tutor, when he was a professor, when he was dean of the faculty of philosophy, and since he has been president during the past ten years. We know all about him,—all of us know all about him. Of course, I could take up the whole evening by telling you how the college has grown under his administration, how it grew before he was president, and since he has been president. I could tell you how its funds have increased, how its students have increased, how we have had new buildings,—a chapel, dormitories, a school of mines building, a law school building, a philosophy building, and a college hall,—all these things we have acquired during Butler's administration of the presidency. But after all, you know it already.

But perhaps you would like to know—and I suppose that is really why I have been asked to speak tonight—what is the inside history of Butler's administration. As the Scotchman said, you would like to know "how he warks his warks." Or, to put it in the plain American vernacular,—Why is Butler, and how does he do it?

Well, first of all, why is he president at all? You all remember that ten years ago, Mr. Seth Low, who had been president of the University for twelve years, accepted the nomination for mayor of this city, and at the same time he sent a letter resigning his position as president of Columbia. That letter was received on the first Monday of October, 1901, which happened to be the seventh of October that year, ten years ago today. Of course, we had known that Mr. Low was going to resign, because he had told us about it beforehand, and, at his suggestion, we took one of the deans, who happened to be by no means the eldest dean, and made him acting president while we were considering the question of filling Mr. Low's vacancy, and that was Dean Butler of the faculty of philosophy.

But then the question arose as to whom we were going to make president of the University. It would, of course, have been a very easy thing for us—we had a man who was there, who was on the spot—it would have been a very easy thing for us simply to elect him permanent president of the University; but the trustees did not feel that their duty would have been at all well performed in any such offhand fashion. We talked the matter over with a great deal of care. And the members all felt that the primary function of a board of trustees, the real thing for which they exist more than anything else, the one thing for which they are solely responsible and which they can not shift to anybody else, is the election of a president. And we felt that we were bound to get, not only a good man, but that we were bound to get the best man that we could possibly get for Columbia, whether he was to be found in America or in Europe,—or for the matter of that, in Asia or Africa or Australia, or anywhere else in the world. We spent a great deal of time over the problem. We looked over the whole field, and we consulted people who we thought were likely to know something that we did not know already and who were able to give us good advice. And after three months consideration, the trustees came to the clear and strong and decided and unanimous opinion, that the best man in the world to be president of Columbia College was Nicholas Murray Butler.

Well, that got him into the position. Now what has he been doing since he stood there? One function of the board of trustees, as I have said, is to select a president, and the other great function is to advise with him and to help him along whenever he gets into rough places. The function of a wise president of a university is to initiate, and to come to the trustees with every doubtful question whether it is important or not, and with every important question whether it is doubtful or not. Now, that has been President Butler's rule all through. He has come to the trustees constantly, freely and frankly, and consulted with them.

I believe in some academic circles it has been preached of late that a university president is invariably a little despot, who has a negligible sort of body behind him in the persons of the board of trustees; and that the trustees always follow the president's advice and always back him up in all kinds of wickedness that he may choose to undertake. I know that is not so in every board of trustees. I know it is not so, for instance, at Princeton University, and I know it is not so at Columbia University.

At Columbia University, our board of trustees is pretty old. It has held meetings for one hundred and fifty-seven years,—not always, of course, with the same members. And, like most old people and old institutions, its members have some queer ways, they have some idiosyncrasies, and there are some things they are a little touchy about; and I am bound to say that President Butler has got the length of their foot very accurately, and that, on the whole, they are generally quite amenable. There are times, however, when the president gets overridden and reversed. But the popular theory about a president's powers then comes in very satisfactorily for the board of trustees; because, if there is any criticism to be made, even though the board of trustees are the responsible people and have overruled him,—and generally the foolish things that are done are when they don't listen to him,—public opinion is that it is all Butler's doing, and the trustees get off free of any criticism at all.

Another thing that he has always done, and done, as I think, very wisely,—he has always insisted that we should never undertake any innovation or any other important step unless there was substantial unanimity in the board. Of course, substantial unanimity is not easy to obtain at first. Men's minds differ a great deal. But what substantial unanimity means is that important questions are debated and discussed and talked over, backwards and forwards, and, when we do take a step, it is taken with the full, intelligent, and complete assent of the entire board.

In a very few words, these are some of the reasons why President Butler secured at the outset, and why he has always retained and still retains the affection, the admiration and the strong, warm, unanimous support of the board of trustees. God bless President Butler!

THE TOASTMASTER:

There is an ocasion on record one hundred and fifty-seven years ago when the board of trustees was cheered. We have broken that record tonight.

Now that we have heard from the corporation of the University, we will hear from the other side. And who is better fitted to speak for the combined faculties of Columbia than the dean of deans, the first Theodore Roosevelt professor in Germany, who carried the fame of Columbia and of the country throughout that land? And one reason why he was able to do it was because he spoke in their native tongue. That is not a hint to him to talk in that tongue here. We learned German, pure Ollendorf German, that no German by any possibility could understand, and I am afraid we might not understand *real* German. So I will ask him to speak in the vernacular, and present to you John W. Burgess, the dean of deans of Columbia.

DEAN JOHN W. BURGESS:

Although I am only an adopted member of this association, and hitherto have played only a minor rôle, if any rôle at all, at its functions, yet I am not astonished to be asked to say a few words concerning the distinguished guest of this banquet, and to represent my colleagues and his colleagues on the faculties of the University, in extending to him our most heartfelt congratulations on reaching, with so much success and with so great honor and *eclat,* the decennial of his presidency of the University. I say I am not astonished, because I am his oldest academic friend now at the University. I am the lone figure—I do not say lonely, I could not be lonely so long as he is there—I am the lone figure there, now, of the generation which preceded him. Therefore, I claim to have contemplated him from more points of view and to have measured him by more angles

NICHOLAS MURRAY BUTLER
IN 1884

of vision than almost any other, if not quite any other, here present tonight.

First, I looked down at him; officially, I mean, and only for a short time. Then I looked at him on parallel lines for a longer time. And now, for a long time I have been looking up at him, and as the years go on I am compelled to look higher and higher, until the angle of my vision has already become almost a right angle.

First, he was my pupil, one of the very best I ever had, I don't know but I shall have to say, the very best I ever had, although I have had a host of mighty good ones, many of whom are here present tonight. I can see at this very moment that bright, handsome young face in the front row on my right in the old Hamilton Hall on forty-ninth street, intelligent, alert, interested, zealous, taking in everything correctly, exactly and fully, and giving it back again with more point and in better form than he received it. Then my memory runs along a few years, and I find him occupying the next room to my own, in that same old Hamilton Hall, my youngest colleague, the brilliant young professor of philosophy. And the recollection of the hours which we then spent together, first in his room and then in my room—for if I were not in his room he was generally in mine—revolving our dream and then our plan for the development of Columbia College into Columbia University, comes back to me with great vividness. In fact, he seemed to me to be about the only officer of instruction in the entire institution who had any adequate conception of the destiny of Columbia.

Then came the crucial moment. The gloomy and discouraging interregnum of 1888 and 1889 had passed. The trustees had given the institution a new president, a man of broad and liberal views, of great executive ability, and with unbounded enthusiasm and ambition for the development and the aggrandizement of his *alma mater*. President Low immediately assembled all the officers of instruction of the entire institution in what President Butler has since called our "constitutional convention," and in a session of three days, or rather three nights, he placed the question of our future in debate. As the youngest among us, Professor Butler was called upon first to present his views, and no one who was there present that evening can ever forget the succinct, powerful and convincing argument which he made for developing Columbia College, as we then termed the entire institution, into Columbia University. When he sat down, I knew that the battle had been won, and I had a sort of dim presentiment, which has come back to me time and again since then, that some day or other Columbia University would, under his guidance, become the leading university of the world.

The struggle at that time was around the question of the creation of a university faculty of philosophy and a university senate, and when the trustees, under recommendation of President Low, resolved to establish these bodies, it was entirely evident that the deanship of the new faculty of philosophy must come to the man who, next to President Low himself, had done the most to bring it into existence.

For twelve years then we labored shoulder to shoulder for the organization and development of what we now call in the University the graduate faculties and the graduate schools, always with one aim, generally of one opinion, and where we differed, I am ready to concede now that the probability of error was all on my side. No man can testify more strongly or more willingly to the value and the brilliancy of the work and the service of President Butler, as dean of the faculty of philosophy, than I. And I know now, and I have known for a long time, that the trustees of the University made no mistake when they called him ten years ago to the presidency. Since then the history of Columbia has been one of uninterrupted progress. Its teaching force has increased by hundreds, its student body by thousands, and its funds by millions, until at last, in number of teachers and of students, in literary and scientific output, and in endowment, Columbia has actually become, under the presidency of President Butler, the leading university of the civilized world. It is a proud position, which it has now attained, and it may well gratify the ambition of any man to have the chief part in placing it there.

Well, now, there are others here who are primed full of ideas and of feeling and are bubbling over with the desire to express themselves, and I must give way, but, before I do, I am going to ask you to allow me to assume once more, for a moment, the rôle of the president's old teacher and give him a single word of advice, or, if that be too presumptuous, let us call it the expression of a word of hope. I hope that President Butler will never abandon academic life for governmental position. You see I make a distinction between governmental position and public, or even political, life. President Butler is now and for a long time has been in public and political life. In fact, for years he has been one of the most influential personalities in the public and political life of this country and the world, and all the more so because he is the president of a great university.

I do not express this hope because I consider President Butler less fitted for governmental position than for academic life. I consider him capable of filling any position in any line of life which he will undertake. I think, I know, that he would make a sane, safe, sound and successful president of the United States. Neither do I express this hope because his colleagues at the University unanimously and earnestly hope that he will remain their chief. But because I believe that he can do more for the people of New York and of these United States and of the world, as the president of this University and as an eminent American citizen, free to form and express his own opinions in his own way, and to labor for their realization untrammelled by party or administrative considerations.

From my childhood I have heard the fact bemoaned that the best men of the Republic are not to be found in its governmental stations, and I have pondered often and long over the significance of that fact, and I have come finally to the conclusion that, for the safety of the Republic, the very best men ought not to be in governmental positions, at least not many of them, and that the persistent fact that they are not has its philosophical justification. In the genuine and lasting Republic the finest work for culture and civilization must be done outside of the governmental positions, by great personalities and by private combinations of great personalities, exercising their power through rational and moral suasion and influence, rather than through force and compulsion. In the genuine and lasting republic government must be held back from crushing out individual liberty and individual initiative, and from grasping the highest cultural functions of the nation. This must be done from the outside. Nine men in every ten who attain to governmental station address themselves immediately and assiduously to the expansion of their jurisdiction and the intensification of their power. What this Republic needs more than anything else at this moment is a mammoth national association led by the most capable personalities of the land, whose purpose shall be the defence and preservation of the constitutional realm of civil liberty and immunity against the advancing encroachments of governmental power. And if the result of this meeting, directly or indirectly, should be the initiation of such a movement with President Butler at its head, it will have produced the most memorable event of American history since the triumph of the Union over secession nearly fifty years ago.

Let us reflect if this shall not come to pass and demonstrate to the world that a great university president may be, and should be, and shall be, the most useful, the most influential, and the most powerful personality in the political life of a genuine republic.

THE TOASTMASTER:

Is it at all astonishing that Dean Burgess carried Germany by storm, and that the man he praised did exactly the same thing? Some years ago, an honor man of Queen's College, Belfast, a teacher of great repute in Ireland, came to this country. He engaged for a number of years in newspaper work, but saw the error of his ways and became a superintendent of schools in Brooklyn. He remained there for a number of years, and New York finally heard of him. Then they tried to get him. Brooklyn would not let him go. The only thing left for them to do was to take Brooklyn too. Thirteen years ago they took in that benighted village, and the superintendent of teachers with it, and they made him the superintendent of schools of the greatest school system, of the greatest city in America, and since then he has been busily engaged in training hundreds of thousands of school children of this city for Columbia. One time president of the National Education Association, one who knows more about education than probably all of us together ever will know, Mr. William H. Maxwell.

SUPERINTENDENT WILLIAM H. MAXWELL:

It is a great pleasure to me to participate in this tribute to Dr. Butler on the completion of ten years as president of Columbia University. It seems only yesterday when, in the great hall of Columbia, in the presence of a vast concourse of our foremost citizens, he was dedicated and he dedicated himself, to the direction and upbuilding of the University. And even fresher, perhaps, in the recollection of those who were present then and now, must be the dinner, held under this very roof, at which friends and admirers pledged to him their friendship and their support. Fervent were the wishes expressed for his success, strong were the hopes in every man's breast, that under his administration Columbia would increase her strength as a teaching institution, that she would become a still greater force for good in this commonwealth. For Columbia always was such a force. I venture to think that no one who expressed such a wish or entertained such a hope ten years ago, has been disappointed. If any one feels that less has been achieved than was anticipated, it can only be President Butler himself. He was then, and he is in reality still, as President Patton happily expressed it, "on the morningside of life." Youth is the period of day dreams, of large ambitions; and it may well be that tonight, as he casts his mind backwards, he feels that some of the dreams, some of the ambitions of ten years ago have not been realized. Of one thing I am certain—he, himself, is under no illusions as to what he has accomplished. And if there is in his mind any shadow of disappointment with the results of the last ten years, it is our part to assure him that what he has accomplished is even more than we, his friends and well-wishers, expected. A business man of extraordinary executive power, a scholar equipped at all points with the newest and the strongest philosophical and critical armor, he has increased Columbia's efficiency as a teaching body, he has extended and intensified her influence as a civic force.

The public schools, which I have the honor to represent, have felt Columbia's influence both as a teaching body and as a civic force. Fifteen years ago the schools of New York were sunk in ruts thirty years deep, the teaching force was bound in the fetters of tradition and of politics. It was Dr. Butler, then a young professor in Columbia, who, by spoken and written word, by the pure force of reasoning, brought the sad and gloomy condition of the people's schools home to the minds of thinking men and women. The agitation thus commenced continued until the boards of ward trustees, the jailers of the teachers, the chief political element in the system, were exterminated; until, through the Pavey Act of 1896 and the Charter of 1897, the professional teacher began to come into his own again in the public schools of Greater New York. That agitation did not cease until, in 1902, when Mr. Seth Low was mayor of New York, the fitting relation of a board of education to a school system as its final determining authority was established; when political influence was absolutely eliminated from the appointment of teachers by the requirement of true professional training, and through the institution of competitive examination; and when the initiative in all educational matters was placed in the hands of professional teachers. These far-reaching, almost revolutionary reforms clearly had their origin in the denunciation of abuses by a young Columbia professor, whose voice at first was thought to be only that of one crying in the wilderness.

But this reform movement is far from being the only benefit which the public schools owe to President Butler's initiative in Columbia. They have benefited also from her teaching power.

The first function of a university, I suppose, is to offer facilities to young men and young women for graduating in that line of study to which their aptitudes direct them. The second is to offer them facilities, both before and after receiving the baccalaureate degree, for following that line of study systematically, as Matthew Arnold phrased it "under first-rate instruction." "It is impossible," said Mr. Arnold, "to overvalue the importance to a young man of being brought in contact with a first-rate teacher of his matter of study, and of getting from him a clear notion of what the systematic study of it means." That want has long been felt and increasingly supplied in philosophy, law, theology, and engineering. It is only recently—within the past twelve or fifteen years—that it has been at all appreciated in teaching. It is not yet fully appreciated in the teaching profession, and is only beginning to be felt in commercial pursuits. The old rule was, do a thing and you will learn by your blunders how you ought to do it, or at least how you ought not to do it. The new rule—the better way—is, learn how a thing ought to be done, and then you will be more likely to do it right. This is the rule that public school teachers are beginning to follow. And Columbia has been conspicuous among universities in affording them the opportunity. The little institution which, under Dr. Butler's management, first threw open its hospitable doors to teachers at No. 9 University place, has now become the opulent, the splendidly equipped Teachers College, an integral part of Columbia University.

Gentlemen, it would be impossible to exaggerate the great influence for good which that school has exercised on the public schools of this city and this country. Thousands of our teachers have taken and are taking advantage of its opportunities, under a faculty of unsurpassed attainments, for the systematic study of the science and art of teaching. Many of the ablest teachers, both elementary and secondary, in this country, have sought positions in our public schools that they might take advantage of these opportunities. The candidate for one of our higher posts is indeed rare who does not point with pride to his record of post-graduate work in Teachers College. And you have only to enter one of our more progressive schools to note the effects of systematic study on the part of teachers, in the skill of the teachers and the interest of the pupils.

But there is another great function of the modern university which Columbia nobly subserves—which all educational institutions ought to subserve—to be a force for civic righteousness in its own community and in the nation. During the past nine months we have had a notable illustration of the efficacy of that force in our own city. A new city charter was presented last winter to the legislature. It was a thing of shreds and patches—a measure to which no man would pay even the doubtful compliment that Touchstone paid to Audrey: "A poor virgin, sir, an ill-favored thing, sir, but mine own": yet which had the backing of our mayor and of the political party predominant in city and state. On other parts of that measure I do not pretend to pass judgment, but with regard to the educational chapter I have an enduring conviction that, had its provisions been enacted into law, it would have largely undone the reform work of 1896 and 1902, plunged the schools into politics, and impaired the influence of the professional and progressive teacher. It was the opposition of educators to this educational chapter that focused the attention of the public on the charter as a whole, and first roused the people to a fighting sense of right and wrong in the fundamental law of this great city. And of those educators, none stated the issue more clearly than President Butler when he wrote to Mayor Gaynor: "I do not particularly fear the introduction of what is called politics into the schools, for that may happen under any system of administration, but I do very much fear the substitution of personal and official meddling for expert initiative and direction." Such words from President Butler, and similar words from Eliot, Hadley, Lowell, and hundreds of our best and wisest, sowed the seed that grew into irresistible opposition. For that seed fell on good ground. And I take it that it is the knowledge that has been widely diffused by college, university, church, newspaper, and school, that fertilized the soil, so to speak, of men's minds, and enabled them to see the truth and to stand for the right. Surely this memorable controversy is full of instruction and of encouragement. Perhaps at no other period in our city's history could a measure of this kind, supported by the unrivaled ingenuity of our jurist-mayor and by the unequaled political authority of the party predominant for the moment in our city and state, have been beaten by the voice of the people. But so it was. The proposed charter was beaten by the sheer strength of public opinion. Surely no higher testimony could be paid to our educational institutions as forces of civic righteousness, than to say that they were the schools in which the men and women who did this great thing, were trained.

I am well aware, and Dr. Butler is well aware, that there were many teachers in the public schools who did not look with favor on his efforts for reform from 1883 to 1896, who regarded him as a disturber of their peace and an impertinent meddler with other people's business. I am well aware and Dr. Butler is well aware that there are those in the public schools today who still hold that view. But I am equally confident that when I bring my congratulations to President Butler on the completion of ten years' service as president, when I state my profound gratitude for what he has done, indirectly as well as directly for the public schools, for our great University, for our city and for our country, I speak not merely for myself but for the most progressive, the most conscientious, the most patriotic teachers in our public schools.

THE TOASTMASTER:

From far off Wisconsin to the United States Senate at Washington, and then along the well blazed trail from the capitol city to the city of capital. To this city from the place where he helped make the laws, with a full knowledge of how to break them, knowing well their weakest points, came John C. Spooner, was taken into Columbia on his arrival, and is now one of our true and loyal sons. Senator Spooner.

HON. JOHN C. SPOONER:

I am peculiarly glad to be greeted as a "jolly good fellow," since, if Dean Burgess is right, I cannot be admitted to the "very best citizen" class, having held public office. I have been accustomed to speaking upon a subject, either chosen by myself, or assigned to me. This evening I have chosen none for myself, and none has been assigned to me. But, really there is but one subject possible here tonight, and that is Nicholas Murray Butler.

I have not seen in a long life, a weightier or finer tribute to great service in a great office than that which you pay tonight, by your presence and your plaudits, to Nicholas Murray Butler, president of Columbia University, and a large portion of its weight and fineness lies in the character of this audience. You, who pay this tribute, are all, or nearly all, alumni of Columbia University, and you carry in your hearts the peculiar affection for your *alma mater* which every alumnus of real manhood and sentiment entertains for his *alma mater*. Most of you live almost in sight of the University buildings. Some of you were graduated from Columbia long ago. I see on the roll here one in the year 1847, some in '59, some in '60, '61, '62, and the succeeding years. Upon the heads of some of you has fallen "the snow which never melts." You all have the deepest concern for the growth and welfare of Columbia University, not simply in respect of added endowments, or the maintenance and enhancement of scholastic standards, and of student number and morale, but that the sphere of influence of the institution upon the world shall be an ever widening one. You are, therefore, not complacent, but critical, in respect of your *alma mater*, and so I say that there could not possibly be a tribute finer or more significant in its quality than that which you here pay to Nicholas Murray Butler on this tenth anniversary of his election to the presidency of Columbia University.

But, the best of it all is that he richly deserves this tribute. He has fully understood the responsibilities and scope of this high office, and has discharged its duties with eminent success. The office is an exacting one, and its demands are varied and unceasing. It demands more than profound and finished scholarship; it demands more than great administrative ability. The president of Columbia

University must keep abreast of the world, and its economic thought and movement, with the science of government, with public opinion, and with public problems. The higher the standard of Columbia University, the higher is the standard which its president must bring in respect of accuracy of thought, wisdom of judgment, breadth of general knowledge, excellence of diction, and power of attractive speech into every public appearance: because, whether he will or not, he speaks and writes not as Nicholas Murray Butler, but as the president of Columbia University. And it is but the very truth to say that, during his incumbency, he has, with distinguished ability, met every draft which the office has drawn upon him, at home and abroad. One of the pleasant and useful incidents of my residence in this great city, to which I came not long ago a comparative stranger, has been that I was admitted to his friendship.

Although severed from public duty, I confess I have been, at times, since my return to private life, greatly concerned over tendencies and public policies which seemed to me incompatible with the safety of our institutions and violative of the organic law of the nation. More than once I have been permitted to confer with President Butler upon public tendencies and policies, far-reaching and of vital importance, involving questions upon the correct solution of which depends the success on this continent of representative government, and I have found him, always, fully abreast of the times and profound in his knowledge of the principles upon which this government is founded, and unshakable in his loyalty to them.

No leadership, however fascinating and brilliant, can swerve him a hair's breadth from his convictions as to what the best and ultimate interest of this Republic requires. I told him a few minutes ago that I had had great comfort in consultations with him as to various questions which have become important in the last few years, and that my only hesitation about publicly commending his level-headedness and his moral and mental courage and wisdom lay in the fact that I would be, at the same time, praising my own, since I have always found myself in strict and quick accord with him.

In the carnival of hysteria which, for the last few years, has swept over this country, begetting in the minds of the people suspicion and class hatred, out of which has sprung an apparent desire to change our governmental system, I have always found your president, Nicholas Murray Butler, sound. If he has ever said a word to the students of Columbia University against the "initiative" or "referendum" or the "recall," I venture to say that he never has apologized to his students for having wrongly advised them. There is nothing in the favors of socialism which, as a sane man, he does not condemn, and which with his strong fibered force he does not oppose.

I wish every child old enough to read and think, and every man in the United States, could have put into his hand the address which President Butler delivered before the National Education Association in Denver a year or two ago, replete with wisdom and the highest type of statesmanship.

Dean Burgess anticipated me in speaking of the fitness of Nicholas Murray Butler to be president of the United States. I do not say that Columbia would be willing, of course, to lose President Butler. I have thought, that in the history of the Republic, some of our very best citizens have occupied governmental positions. President Lincoln was, in my opinion, one of the best men and one of the wisest men, and one of the cleanest, sweetest, quaintest, bravest men who has lived in our history; and I have thought it to be one of the glories of Columbia that, in 1861 or 1862, she resolved to confer, and did confer, upon him the honorary degree of doctor of laws. I have been told that she alone, of all the colleges and universities, possesses the honor of having thus honored him. In the rough school of life he had fitted himself for the honor.

I have said publicly before, and I repeat it here tonight, that I do not know of a position (outside of one requiring the training which comes from the study and practice of a profession like the law) in the government which President Butler is not fitted, by natural gifts, education and sound judgment, to hold and fill with distinction and credit, from the first moment. That he is a diplomat, you have already discovered. I find it here—(referring to printed card). I leave out the "finest pebble on the beach," although (turning to President Butler) I think you are *it*. "So diplomatic, so democratic, oh, Nicholas Murray Butler, you're a peach." That will be a classic.

I do not know of any position in the cabinet, excepting perhaps the position of attorney-general, which he would not fill with distinction. I do not know any court in the world as ambassador to which he would not serve with skill the interests of this government, for he knows international law. If he were president, he might now and then have to get rid of a cabinet officer, and, if he felt it was his duty, he would do it, just as he has had now and then, if the interests of the college required it, to eliminate a professor, whatever personal pain it might bring to him.

If the time ever comes when the fundamental principles of our government are seriously in danger, when the old ship must be

steered back within the lines of safety, and there shall be a call for Nicholas Murray Butler—and no better man could take the helm—why not? The safety of representative government is worth much. To perpetuate it as it was created, and as it was preserved, is the highest duty that any man could be called upon to perform. And if Dean Burgess shall then be alive and strong, as I hope he will be, Columbia University, Dean Burgess and the trustees, will have to get along the best they can until Nicholas Murray Butler comes back from the presidency of the United States to the presidency of Columbia University.

I will not stand a moment longer between you and President Butler.

PRESIDENT NICHOLAS MURRAY BUTLER:

My dear friends: It would be far easier to keep silent than to speak in this presence and with these all too generous and affectionate words ringing in one's ears. It is not possible to be proud; one must feel humbled by it all. I believe it was Solon who said, "Call no man happy until he is dead"; but unless I inadvertently died yesterday, I offer myself as an exception to his rule. What greater happiness can be given to anyone than to live the life of a member of a great university, surrounded on every side by friendship and affection and generous help, to see the work that has occupied one's life and filled one's heart from boyhood grow and expand itself; and then, after the lapse of years, to find this great body of Columbia men feeling that it has been worth while. There may be moments in one's life that can fill the cup of happiness still more full than that, but I can not imagine what they may be.

It fills me with joyful pride to hear from those who know, and from those who understand, and from those who have seen the vision of the Columbia of tomorrow, that we are going forward toward the goal of which we have been dreaming. More than any other university known to me, our dear Columbia in these last forty years has seen the true vision of a university of the twentieth century and has labored unceasingly and with astonishing success for its achievement.

A university like ours is no mere local school of learning, it is no mere gathering of teachers and students for the work of the moment. It is, my friends, one of the few great everlasting forces known to man for the upbuilding of civilization.

Many of you have heard me say more than once before, and I say it again, that the university takes its place by the side of the church and the state as one of the three great fundamental institutions of civilization. The church represents man's religious instincts and insights and aspirations. The state reflects his political ideals and hopes and methods and policies. The university represents him in his everlasting search for truth. It sprang out of man's deepest human needs, and at this moment it is the oldest existing institution, save the Roman church and the Roman law, known to our western world. Before parliamentary government was invented, there were universities. Before the earth was known to move around the sun, there were universities. Before the Protestant Reformation, there were universities. They go to the very roots of human endeavor, human aspiration and human accomplishment. And the man who would underrate a university, who would undervalue its service, who would depreciate its high office, has no conception of what a university means and what it does.

Our university has seen such a vision. It has assembled for its accomplishment one of the greatest bodies of scholars on earth. They are numbered by the hundreds, if you please, but I prefer to count them by their quality. I like to think of their contributions, constant, many-sided and important, to the advancement of science and philosophy and letters, to law and medicine, to engineering and teaching. I like to think that, when the account is made up and the history of the scholarship of the century is written, our name will be found high upon the list. They will not be able, these men of the twenty-first century, to write the history of the scholarship of the twentieth, and leave us out. That, my friends, is to be our reward. We value these increases in endowment of which you speak, but they are insignificant. We value these increases in numbers, but they are only important in that they enable us to select the best. We value all the evidences of popular appreciation and support, not as material things, but in order that we may use them for the high purposes which are a university's true aim.

Anyone who writes the history of universities in the terms of the personal characteristics or the accredited achievements of their presidents falls far short of the real truth. The incumbency of a university president is like the reign of a monarch or the rule of a president, convenient as a standard of measurement, but it is the men of letters, the men of science, the men of vision, the men of accomplishment who are remembered in that administration, who give to it meaning and form. Just so we remember Shakspere, but we have to turn to the encyclopedia to find in whose reign he lived.

Reference has been made to the office of university president. That is a subject upon which I have some information. It is sometimes supposed that the university president unlocks the doors in the morning, opens the mail, typewrites the letters, appoints, pays and dismisses the professors, licks the postage stamps, sweeps out the rooms, and closes the buildings for the week. Let me tell you something about the presidency. If I were to attempt to describe its duties in terms easy to understand, I should say, speaking of it in terms of English political life, that the president is a prime minister, holding the portfolios of foreign affairs and of chancellor of the exchequer. He is prime minister in that he is ultimately responsible for the policies of the administration, the consultant, the adviser, and, I am glad to say, the intimate friend of every person charged with an academic duty. He holds the portfolio of foreign affairs in that it is his function to look personally after the external relations of the University, its relations to the surrounding public, to other universities and to the affairs of the country at large. He holds the portfolio of chancellor of the exchequer in that, if more expenditure is demanded than the stated income will provide, he has to find the additional income needed. And up to date he has not been constitutionally empowered to levy a tax collectable by ordinary legal methods!

Furthermore, the president lives almost exclusively in the future. With the work of the current year, the president has no contact and but little concern, save as specific problems are brought to him for consultation or advice. He hears nothing of the current work until he reads the records or the newspapers, and, if he trusts the latter, he hears little that is true of what is going on. His concern is almost exclusively with next year and the year after; what are going to be the new activities of Columbia in 1912–13, 1913–14; what is the law school going to need; how is the medical school to be helped to solve its problems; what must be done for research in engineering; and what about the graduate schools; how are we going to take care of the new demands for teaching, research, publication; what about our relations with the University of Paris, the University of Berlin, with South America, with Japan, how are all these to be cared for; and what attitude are we to take toward the new demands that are making upon us far in excess of our probable capacity to meet. So that you may be very sure that, if there is going to be any trouble in 1912–13, the president knows about it now. If there is any trouble in 1911–12, he knew about it a long time ago, and it has been pushed out of his consciousness by the troubles of tomorrow.

The consequence is that through having an officer whose concern is for the whole University, who is not the partisan of any of its schools or of any of its departments or of any of its individual members, but who is the representative and the partisan of them all, and who can give his time to looking ahead, the University grows consciously, systematically, and it moves forward steadily from year to year. Any university will grow and advance that has the sense to appoint an officer for such purposes and to set him free to do those things. A university that prefers to have the mail opened and the stamps licked and the rooms swept and the professors appointed and paid and dismissed by a president, can do that if it choses. That is not our kind of university.

Dr. Maxwell spoke a moment ago of the charter, about as lamentable a performance as has occurred in the city and state of New York in many a long year. It is now happily interred. The fundamental principle at stake so far as regards the educational chapter of that charter was the principle which our University illustrates to the full. We owe a debt that not only never can be paid, but that can hardly be stated, to the men who, as trustees, in season and out of season, winter and summer, day and night, give loving, gratuitous and surpassingly able service to the great financial and educational interests of Columbia. It has always been so through the thirty-two years that my memory runs back, and it has been so through the earlier years of which I have been able to read. One must remember that universities—and our University preeminently—are a splendid example of what generosity, self-sacrifice, devotion will do when applied to the accomplishment of an ideal end. I should not know where to look for an example of model government susceptible of being extended in principle over city and nation and state, if I could not find it in the government of a typical American university. We know the difference between the people and the mob. We know the difference between democracy and tyranny masquerading under its form, and we are not in the habit of being afraid; and that is a large part of the secret of both good government and good administration. A man who is afraid, whose ear is so fast to the ground that he can not hear, will have a hard time in standing up long enough to see straight!

The life in a university has been contrasted with life and opportunity in other callings and in other forms of activity. If I may indulge for a moment in personal reminiscence, I would say that, of the three or four guiding principles of my life, a very powerful one has been the lesson taught me by Professor Burgess thirty years ago, as to the distinction between the realm of government and the realm of liberty. Of the two, I prefer to pass my life in the realm of liberty. Both are public service. Nothing is more superficial than to suppose that only governmental matters are public. But we are living in a time when government, partly out of sheer curiosity, partly out of nervous fear, partly out of lack of principle, is infringing on the realm of liberty day by day. Somebody, some institution, some body of opinion must have the courage to call a halt. So long as they leave us the constitution and the courts, we can attend to all of the rest ourselves, but it is when they begin to undermine the constitution and the courts, that, as Senator Spooner has said, we need to be on our guard.

Now, my Columbia friends, make no mistake. We are not in this year of grace in any ordinary public condition or in any ordinary state of public opinion. We need to call for volunteers, university volunteers, to ward off the pirates that are arming themselves to sink and to scuttle our ship of state. They have terrified so many people and so many newspapers, and substantially every candidate for office, that there seems at the moment to be hardly a fighting chance left, but those of us who are at work in one way or another in the field of liberty, have a great and splendid opportunity. We are in public positions, we university men; we are in immediate contact with practical problems of every kind, and why, why should we always strike our flag at the demand of every ignoramus armed with a pop-gun? Go to Europe; ask the wisest men in Germany, France, in Great Britain, in Italy—what of the United States? They will tell you with almost one voice, "Its future appears to us to depend upon its universities. If you university men, students, teachers, alumni, if you can make yourselves felt, if you can impress public opinion with the principles that you know and believe in and love, there is no reason why your American democracy should not continue happily forever. But if you desert, if you keep silent, if you are afraid, if you are seduced by promise of gain or of place, we dare not say what may happen to the United States."

So it comes back, my friends, to the same old question; the dreamer of dreams, the poet, the prophet, the man of letters, the man of science has the world in his hand today, as he has always had it. He is the man who sets free the forces, who sets in motion the tendencies, who gives expression to the ideas, which seize hold of and mould the people. They are the men, the dreamers, the seers, the prophets, the men who live with the ideal, who have the world in their grasp.

There is a beautiful poem, written by an Irishman, which says these things beautifully.

We are the music makers
  And we are the dreamers of dreams,
Wandering by lone sea-breakers,
  And sitting by desolate streams;—
World-losers and world-forsakers,
  On whom the pale moon gleams;

Yet we are the movers and shakers
Of the world for ever, it seems.

With wonderful deathless ditties
We build up the world's great cities,
And out of a fabulous story
We fashion an empire's glory:
One man with a dream, at pleasure,
Shall go forth and conquer a crown;
And three with a new song's measure
Can trample a kingdom down.

We, in the ages lying
In the buried past of the earth,
Built Nineveh with our sighing,
And Babel itself in our mirth;
And o'erthrew them with prophesying
To the old of the new world's worth;
For each age is a dream that is dying,
Or one that is coming to birth.

The dreamers, the seers, the prophets, the scholars are the men of the future. They are the men who make Columbia, who make every American university, who make America, and who make civilization!

What joy, what satisfaction, what reward can equal the happiness of working with them and by their side?

My friends, we have passed through an eventful and a useful ten years. I have no illusions, I think, either as to what we have done or as to what we have left undone. But one thing we have done: we have all done our best as we saw it. We offer you, our alumni, our students, our friends one and all,—speaking for my great body of colleagues,—I say we offer you our accomplishment such as it is and hope that, as the years go on, you may feel that those into whose hands you have put your College and University, may not disappoint you. For this great representative gathering, for these quite, quite too generous assurances, for this encouragement and for this stimulus, I thank you each and all from the bottom of a grateful heart.

Photo by Ambrose Fowler

VIEW OF MORNINGSIDE PARK AND VICINITY FROM THE PRESIDENT'S HOUSE

ADDRESS AT MID-SUMMER VESPER SERVICE
ST. PAUL'S CHAPEL, JULY 17, 1911

OVER yonder, above the stately portals of the Library, carved on the very forehead of the University, is a notable inscription. That inscription tells in a few brief words the story of the history of this University and of its aspiration. It is an inscription which everyone who shares our life comes to know and to reflect upon. It points back to what is for us in America a distant past, when conditions were quite different from those that are familiar to us today. It tells of the devotion of our people to the cause of higher learning, to scholarship and to the service which it can render and aims to render both to man and to God. One will look far for an inscription which means more, suggests more, or offers a greater measure of inspiration.

What is it to be a member of a university in these modern days? It is precisely what it has been to be a member of a university ever since these great institutions were called into being. You know how there happened to be institutions like these; how they sprang up at one spot and another all over the face of the civilized globe. The thirst of man for the truth; his imperious ambition to know what lies behind the screen that veils new knowledge from his eyes; his anxious haste to touch the hem of the garment of a great personality, a great scholar, a seer, a prophet of literature or of science—these are the feelings stirring in the hearts and minds of men that have brought them into membership with universities and that have given universities to the world.

It is sometimes said that the university and the higher learning are the latest part and the part most easily dispensed with in the world's educational system. Precisely the reverse is the case. The university is the center of the inspiration of every educational endeavor that we know. It is the great reservoir into which are gathered the reserve stores of scholarship and of knowledge. It is the fountain from which springs the new life-giving streams that are to bring distant peoples and distant lands to new intellectual and moral fertility.

The university is not the home and place of the merely curious; it is not the home and place of the mere dilettante; it is not the home and place of the mere seeker after a vocation. It stretches out its arms in a hospitality that is wide enough to make room for all these; but it reserves its chiefest welcome, as it reserves its chiefest benefits, for those who seek to share in the spiritual life. These may wish to enter in at one gateway or another. It may be that they will come through the gateway of a science, pure or applied; it may be through the gateway of a literature or a language, ancient or modern; it may be through the gateway of history, of economics, of sociology, of mathematics, of philosophy; it may be through any one or more of these; but the entrance must be made in the spirit of seeking for the things of the spirit if one would really enjoy a university, share its life, and carry away its inspiration.

Why are we interested in seeking for the truth? What are the attributes of truth that give it so strange a fascination for the highest type of humanity? Because "the truth shall make you free." Freedom, liberty of mind and spirit, moving and living on the highest plane of achievement, that is the one worthiest occupation of the human being. We seek to know something of the science, the letters and the philosophy of the world, not in the spirit of the mere curiosity-seeker, not in the spirit of the mere collector of the odd and the bizarre; not in the spirit of the mere maker of books of reference and encyclopedias, but for the purpose of growth through, by, and of, the spirit itself. The human spirit feeds upon the things of the spirit. It goes out and finds itself, it recognizes its kind and fellow in every item of rational and spiritual progress that is recorded on the pages of history or written in the face of nature. The great moving power of will, acting through intellect to recognize itself, acting through volition to express itself, that constitutes the growing, the developing personality.

But why should personalities grow, develop? Why not let them alone, like the flowers of the field and the grasses and the grains, to go their own way and to take their chance in the struggle for existence among natural things? Why should personalities want to grow and to develop? That I suppose is the deepest secret of nature and of God. But this much we do know, that the highest and the worthiest satisfactions come to that personality which grows and develops, feeds upon the world's civilization and the world's culture, and devotes itself, as our inscription over yonder says, to the advancement of the public good and the glory of Almighty God. Service, human and divine, is so far as man's vision can see, the end and aim of the growth of personality; and the growth of personality through freedom, through contact with the great realities of life, of history and of nature, is the end for which this University and every university worthy of the name exists.

There is one word of warning that we must bear in mind in this search for truth. There is some danger lest we fall into the habit of thinking that no truth has yet been ascertained and that it is to be reserved for us and our generation to repair that defect. This is the point of view of the cynic; that is the point of view of the sciolist who has put his own egotism in the line of vision and who cannot see the great achievements of the race because he has blinded himself to them.

Remember that truth is like a tree, which while it ever puts forth fresh leaves and new branches, has permanent and enduring roots. These roots are deep down in the soil of humanity's past. We have been building these thousands of years, under the protection and guidance of laws that we still most imperfectly understand, this extraordinary, complicated structure that we call society, an organization in which man normally lives peaceably with his fellow and labors not only for his own advantage but for the common good. We understand but imperfectly the laws which have brought about all this extraordinary manifestation of human activity that we see on every hand; but we know that in the course of these long centuries, epochs, eons of development, certain principles have been established, certain insights have been gained, certain aspirations have been established as the most worthy. In all these centuries we have laid the foundation for judgments of worth, and our only object in training ourselves to make accurate judgments of fact is that we may learn to make accurate judgments of worth, judgments of value, judgments of worthiness; judgments based upon standards that man calls ethical or moral because he builds them into his conduct, into his organized purposes when he expresses himself at his noblest and his best.

So that in this search for truth, for which every member of this University comes through its gates and for which this University alone exists, we are to seek primarily for those established, fundamental principles which are our base-line, which are the point of departure from which we are to measure and estimate the next steps of progress, then to go forward into the land of the unknown with well-furnished minds, with well-equipped natures, and with standards of worth firmly fixed in our characters.

The alternative is to be the plaything of passion and emotion, mistaken for will. The alternative is to be like the chip, tossed about on the tumbling waves without point of departure or destination, finally to sink, to disappear, to disintegrate, because there has been no purpose molded into character, and no guide to carry that personality into any haven that lies open to achievement.

We mistake if we think these judgments of worth are the privilege of the few. They are the opportunity of the many, and no man or woman has understood the meaning of education, no man or woman has grasped the true conception of scholarship, no man or woman has been touched by the inspiration of the University, who has not learned the great fundamental standards of measurement which we erect to make judgments of worth. As we make these judgments of worth, as they become habitual with us, they guide and shape conduct till it becomes service, and the circle is complete. Then it is that the University has taught its lesson to its members; then it is that its members have learned the lesson which the University has to teach. This is the secret of the existence of Columbia University. This is the reason for its continuance through a century and a half of noble service to the people of these United States and to Almighty God, whose name it reverences and worships.

NICHOLAS MURRAY BUTLER

THE RELATION OF THE UNIVERSITY TO FINE ARTS

I have been asked to talk to you this afternoon on the relation of the university to fine arts, a subject so full of interest and suggestiveness, a subject about which there is so much that may be said and ought to be said, that it cannot be treated fully or adequately in a brief address; and therefore I must plunge into it at once without any preliminaries.

To begin with, this subject may be divided into two distinct parts, or we might put it as two distinct questions: First, what should be the relation of the university to the practical side of art; that is, to the teaching of the practice of art? And, secondly, what should be its relation to the history or the theory of art?

As regards the first of these two questions, it can best be discussed by one who is himself a practising artist, and, therefore, I do not purpose entering upon it here further than to state, for what it may be worth, the opinion of a layman who has had more or less experience with those who are engaged in the practical sides of art. That experience has led me to the conclusion that, of the three formative arts, if we may so call them, architecture, sculpture, and painting, the first is the only one that has its proper place in a university curriculum.

Architects should properly be surrounded by the atmosphere of a university, should have the association of men who are engaged in studious pursuits. Moreover they need in their profession a working knowledge of many subjects which are regularly taught in universities, and it is an economy of resources to have them study these in a university in connection with its other students. There can be no better evidence of this, it seems to me, than the signal success which two great architectural schools of our country—those of this university and Harvard University—have had, fostered by the atmosphere, the influence, and the surroundings of academic work.

As regards the second and third of these arts, that is, sculpture and painting, I feel very differently. It seems to me that the painter and the sculptor do not need that atmosphere, or that association, for their best work. Theoretically, we can admit that it would be better for them to be surrounded by men who are cultivating themselves, men who are interested in the liberal arts, and to have the influence of the university atmosphere which we believe to be good for all those who come within it. But there is another side to the matter, which we must not lose sight of. Artists in these two branches, sculpture and painting, need all their time, all their energy, in the years of the student period, for learning what is first of all a trade. It is to this phase of their profession to which as young students they should be devoting themselves exclusively, in my opinion—and I know this to be the opinion of many successful artists as well—namely, the constant training of eye and hand, unremitting practice in drawing or modeling. Teaching of this kind does not seem to me to come properly within the scope of a university, and, moreover, it is adequately provided already through other agencies.

One other point in connection with this part of the subject I will merely touch upon, and that is the effect of the university atmosphere upon what is known as the "artistic temperament," which, by the way, though a common characteristic of art students, I believe history shows to have been rare among the great artists of the world. They worked hard at their trade from the start, and succeeded not only because they were born with genius, but also because in their early years, their formative period, they devoted themselves exclusively to what was really an apprenticeship in that trade. It is doubtful whether they would have made the same success had their student years been passed amid the conditions of university life, and it seems to me still more doubtful whether those who are afflicted with the temperament to which I have alluded would find its best discipline in similar conditions.

So much for the first part of our subject. When we come to the second, the relation of a university to the teaching or encouragement of a knowledge of the history or theory of art, we find a very different situation. Here is in my opinion a field which every university should regard as one of the most important in its curriculum, and which every man and woman who comes to the university should know something about as part of his or her university training.

I know that the term "culture courses," in connection with college work, is now provocative of a sneer or a smile. There could be no greater mistake than to allow it to be treated in this way. The fact is that the more that side of college training which has relation to practical life has been developed in this country, the more the side which tends towards pure culture,—which produces men and women of cultivation,—has been neglected. Let us look for a moment at the experience of the past generations in university life in this country. The old ideal of a university, the ideal which for a long time was followed by the universities of America, was to make its students people of general culture or cultivation, without regard to the pursuit which they were to follow in life when they passed out of the university doors. With the modern tendency to make the university meet the needs of practical life, that old ideal of cultivation has gradually been disappearing, I fear, certainly its influence today is nothing like as strong as it was. I attribute this partly to the fact that the men in our universities who represent that side of university education have not taken the militant part that their opponents have in the campaign in the midst of which we are now living, which has already lasted for a generation, and which is likely to continue indefinitely hereafter. Both points of view in the extreme are a mistake. A university should not educate its pupils for general cultivation irrespective of the work they are to do in life; and it would be a very grave mistake if a university were to devote the lives of its undergraduates wholly to preparing themselves in definite lines for the careers which they expect to follow. Is not the object of the university, as it affects the undergraduate, to provide a foundation on which any man or woman can build thereafter? And is it not a mistake to make that foundation so small and so narrow that it will fit merely a particular scheme, without making any allowance for enlargement or improvement of the plan as it is worked out?

Let me say to all of you, who are entering upon your work now, or who are partly through it, in Columbia University, that what you require is a broad, general foundation. Those of you who know what your life work is to be, and they, I am sure, form but a minority of the whole, should naturally devote themselves to some extent towards fitting themselves for that career. But to devote yourselves exclusively to that is to cut yourselves off from the great opportunities which a university may, can, and should offer to you for general cultivation, for making you broad minded, broad thinking men and women, who will be useful to your community, whatever may be the field of your special activities. You will find in such breadth of intellectual sympathy a resource and a means of recreation that you never will regret.

One of the most important elements in forming such a foundation should certainly be the study of the fine arts. In the sense in which I am now speaking, I naturally include literature among these, since in its higher expressions it is one of the greatest of the fine arts. In saying that I believe this should be one of the great branches of university instruction, please understand I do not mean simply imparting the ability to discuss superficially this painter or that painter, this building or that building, but giving students the means of appreciating intelligently the great works of the past, of entering into the spirit in which the men of the great artistic periods of the world's history have expressed their highest aspirations, their most ideal selves, whether in poetry, architecture, sculpture, or painting. When you come into sympathetic touch with the men who have left their names in any one of these arts, you get as far away as possible from the ordinary everyday work of life, you begin to know what it means to live, not for the day, or for the year or hour ahead of us, but for the sake of giving full expression to the highest form of idealism that man has ever known. The men who created the great buildings, the great paintings, and the great statues of the world, left to their countries a priceless heritage which in some cases has survived the form of government, the form of thought, and all the other aspects of the civilization in which they lived. They have shown that art, if it be truly great, if it be inspired by an instinct for sublime beauty, can outlast every other form of human activity. Is there not something in this to set us thinking? And is it not best proved by the example of the oldest civilization we know, that of Egypt?

Her laws, her form of government, her religion, have long ceased to influence the world. She has left us no great work of literature. The stately procession of her dynasties, so long that our own history seems but an affair of a few minutes by comparison, has passed out of the world forever. Yet in her art she still lives, and her monuments still excite the same admiration that they did when they were created.

We shall find the same to be true, only in a smaller degree, if we consider any of the great periods subsequent. What is it that makes Italy today the great Mecca of the intelligent or educated traveller? It is not so much the history of her various communities, their quarrels, the rise and fall of one after another, as the arts in which the ideals of these communities found their highest expression, the fact that every little town contains some object of perennial beauty created by the hand of man. For most of us it is the study of these that draws us there, and leads us to want to know the history of the people by whom they were produced.

These things are of importance. Art is not to be regarded as one of the luxuries of life, and it never has been so regarded by the people among whom it has flourished. It would be a great mistake for you to so regard it. It is the natural expression of an instinct which every man and woman possesses, though not all to an equal degree,—the instinct for beauty,—and one of the great works with which we in museums are occupied today is the cultivation of that instinct among our people, hoping to obtain a full recognition of it as an essential in the makeup of every man and woman.

Let us consider the subject for a moment from a somewhat more practical point of view. I am still talking to the students as a whole and speaking of their needs, rather than to those who are looking to art as a definite career. Every man needs, no matter what his work in life, a subject to which he can turn for relaxation from everyday cares and toils. I can assure you that there is no field of intellectual activity more broadening, none more profitable or more satisfactory in its results, than an intelligent knowledge and appreciation of the fine arts. It makes no difference whether your career be that of a business man, of a physician, a lawyer, an engineer, or a teacher, the fact that you have some knowledge which enables you to travel intelligently, even though it be only in your own libraries, among your books and photographs, will give you, you may be sure, one of the greatest pleasures and comforts of your life.

Perhaps I need not insist upon the broadening effect of such a study, but I should like to say a word about it in passing. To my mind there is no subject that requires such breadth of knowledge for its thorough understanding or appreciation as the study of the fine arts, because the pursuit of it leads us in so many different directions. History, for example, is a prime requisite. It is not only the works of art themselves, but the conditions under which they were produced that one must know in order fully to appreciate them. Languages also are essential, the modern languages especially, because so much has been written in them that nobody can assume to attain proficiency in this study who has not a working knowledge of at least French, German, and Italian. But perhaps the greatest indirect benefit which is to be derived from the study of the fine arts is the development of the perceptive faculties, the training and quickening of the powers of observation. You will find that the ability to distinguish the good from the bad, the knowledge why one is good and the other bad, an increasing sensitiveness to beauty in its various manifestations, all these will react upon the mind in other matters no less than in their special application to the case in point. They will affect your whole life and thought.

Finally, there is one aspect of the case which seems to me the most serious of all, and that is the part which, independently of your own special work, you as men and women graduating from a university are to be called upon to play in the community in which you live. You must remember that the America of today occupies a unique position among all the nations of the world, in its relation to the artistic expression of which I have spoken. We have no past such as every country of Europe has. We have no traditions of art in this country. Indeed, our Puritan forefathers came here believing that they had left art behind as one of the luxuries that were to be condemned. But the artistic instinct is stronger than any Puritanical teaching such as prevailed in New England in the early centuries of its existence; it was bound to find its expression and has begun to do so. You are today standing at the threshold of a great future of artistic activity, which is to be centered here in New York, but which will extend its influence over the whole country.

Now, no great period of art in the past has ever flourished without cooperation between the layman and the artist. It is the artist who creates the work. It is the intelligent layman who gives him, not only the opportunity to carry it out, but the sympathetic criticism and appreciation of what he is trying to do that is so essential to the finest product of the artistic mind. And there is nothing that we need in this community at the present time more than an intelligent body of men and women who are willing to occupy themselves with public questions in connection with the fine arts, such as civic architecture, the decoration of public buildings and parks, and many other matters which call for enlightened public sentiment. There is no field in which more useful work can be performed by the educated citizen than in that of art. Remember how Macaulay expressed it in his splendid description of the typical prince of the Renaissance. In speaking of his high intelligence and many-sided culture he says: "The fine arts profited alike by the severity of his judgment, and by the liberality of his patronage." It is not merely patronage that artists need. It is intelligent criticism, and for that kind of criticism they have a right to look to the graduates of a great university, who ought to be prepared to take their part in the civic life of the community to which they belong.

I should like to say a word also to those who take this subject from a more personal point of view, that is, those who look forward to following it as a career; but before I do this we must realize that we have reached an embarrassing situation. I am urging you to take up a study for which there is, I regret to say, no provision at the present time in Columbia University. Were this situation peculiar to Columbia, I should have felt great delicacy in entering upon it. However, it is not. It is a common shortcoming of the university and college system of this country at the present time. We are face to face with a serious problem, but it is one which ought to be met by every great university. What better time to speak of it than at the beginning of an academic year, when we can perhaps take measures or formulate preparations towards its solution, such as would pass out of our minds if we left the subject until Commencement, when we all scatter for the summer?

Please let me not be misunderstood in what I say. I am the last to ignore the splendid efforts which are being made, both by men and women, in many of our colleges to stimulate an interest in the fine arts among their pupils. The fault is not with them but with the authorities of the colleges, who do not offer them sufficient encouragement, and who still treat this subject as one of the luxuries of a college curriculum, to be provided for after the more "practical" studies, if the means allow,—which they seldom do. One of the few disheartening circumstances of the profession to which I belong is the slight advance which has been made in the teaching of the fine arts in American colleges during the last twenty-five years, and the small number of persons they have produced who are competent to take up serious work in that profession. Let me take as an example of this fact the branch of the subject with which I have been especially occupied,—the study of Greek art. We are at the present time witnessing the gradual decline of interest in the Greek language. America was the one to begin abolishing Greek from the requirements of its colleges. After her followed England, and now comes Germany with a movement to abolish it also from the requirements for admission to her universities. What is to be the result? What is the situation at the present time, when the president of one of our colleges says that he "already looks upon Greek as a lost cause"? Does this mean that the influence of Greek civilization is to pass out of our lives? Does it mean that we are no longer going to teach our students the importance of Greek civilization, of Greek culture to us, not as a mere matter of pedagogy, but as one of the inspiring guides for our modern civilization? I hope not, because the result would be that we should lose touch with the noblest expressions of the human mind, whether in the plastic arts or in literature. If, with the crowded conditions under which we have to work, it must be that the study of the literature shall become less general than it used to be in our college courses, is there nothing left? I believe that the student of the future in this country, if not the world over, is to get his appreciation and his knowledge of Greek culture and what it meant, not through the language, but through the arts. If this is true, if it is Greek art that is to take the place of the language in keeping us in touch with Greek civilization, what preparations are we making toward that end?

The number of courses given in the subject is not materially larger than it used to be twenty-five years ago. In most of our colleges those who are teaching it are obliged to combine this with other duties, whereas in other countries it is recognized that the subject is great enough to occupy all the time and attention, not of one man, but of a division of the faculty. England, France, Germany, as well as ourselves, have established schools of archeology in Athens for the purpose of training men to a special knowledge and appreciation of Greek art. Why is it that as a rule their schools produce better results than ours? I believe it is not the fault of the management of our school, which has been intelligent and able from the time the school was founded, and its directors have been the best men that the country could provide. I think that the trouble lies with our college system, and for two reasons. In the first place, it has not enabled us to send to Athens, as do Germany, France and England, students who have a thorough foundation in classical archeology, who know what they want in Athens and how to go to work when they get there; and secondly while the universities of those countries provide positions for those who return from Greece competent to fill them, and thus keep the field ever growing and widening, our universities offer such inducement only to the most limited extent in art as distinguished from the classics. The time has come when we must do the same that they are doing if we are to maintain an interest in classical culture in this country.

What is true with regard to the study of Greek art in America, is equally true with regard to the art of every other great period. Think how few persons there are here who are competent to give thorough instruction in the arts of the Renaissance, or who possess expert knowledge of these arts. In the meantime, the need of such persons is increasing at a tremendous rate. Museums are growing in all parts of the country. The instinct for art, the demand for artistic expression and for artistic cultivation are asserting themselves in every direction, nowhere more intensely than in the west, where perhaps we might least have expected it, because the materials for stimulating or gratifying that instinct have there been most restricted. The people of our country do want to be educated in art.

Through the formation of private collections, also, this country is growing richer every year in great masterpieces of ancient and modern art. The people who have charge of the museums, and the private collectors as well, are all on the lookout for competent experts to assist and guide them. Their aims are high, and they want only the good. The standard of taste in this country has grown enormously in the last fifteen years, but the standard of knowledge has not grown in the same ratio, because we have not had the authorities from whom that knowledge could be derived. But the recognition of the need of that knowledge has been increasing all the time, and therefore it seems to me that our subject is one which the university can no longer continue to neglect.

This brings us to another question, into which I have not time to enter, namely, the attitude which a university should take towards advanced instruction in the fine arts, that is, graduate work in developing specialists. But I should like to call the attention of all those who are interested in the matter to the admirable letter which appeared in the New York *Nation* of October 20, 1910, signed Preceptor, in which the case is forcibly stated, and with the views of which everyone who is actively engaged in museum work must heartily sympathize.

The careers open to those who are really thoroughly trained for this profession are, I believe, many and varied. No student who is attracted toward it need fear that he will not be supported, provided his knowledge is more than superficial. First of all, the museums of which I speak will be in constant need of intelligent and trained men and women. Second, I hope the need of broader university instruction is going to be recognized and filled at no remote date. Third, the collectors of the country are constantly seeking expert assistance, both in the selection of their pictures and in the cataloguing of them, a field which offers attraction in itself, and for which those who demand first-class work are now generally obliged to send abroad, because we cannot provide the men. And, finally, there is always the need of competent writers on the subject, who will carry forward the educational work of the country.

I have talked beyond the limit of time allowed me, Mr. President, because I have this matter very much at heart. I feel it especially as regards the relation of Columbia University to New York City. In New York, as I have said, we are in the center of the great artistic movement which is now spreading through the country, —a movement of which we are but at the very beginning, whatever we may think of the progress we have made hitherto. The museum with which I have the honor to be connected is doing all it can to raise the standard of appreciation of art, by providing examples upon which that appreciation can be worthily based, and by placing them before the public under conditions which enable them to be intelligently studied. In connection with this part of our work we are developing a library which should appeal to advanced students either for general study or for special research. It seems to me that Columbia University, with the exceptional opportunity offered by the great museum which is growing so rapidly at its very doors, has not only a unique privilege but a grave responsibility towards our community as well as towards its own students. Therefore I look, I hope I may say with confidence, for the time when there shall be a thoroughly organized department of the fine arts, for the teaching of the various branches of the history of art, both ancient and modern, and for the training of specialists of which this country stands so much in need.

EDWARD ROBINSON

THE SPIRITUAL SIGNIFICANCE OF MATHEMATICS*

THE young man who declared his intention of devoting the evenings of an entire year to an "extension course" in arithmetic "because," said he, "no matter what one's occupation may be it is necessary to be a fine mathematician," represents a large constituency. Most people regard mathematics as little more than a slight refinement and generalization of the arithmetic of the counting-house and the rude geometry of the carpenter and the mason; and they value it because it rightly seems to them a necessary means to the effective day-to-day conduct of practical life. This conception, though pathetically rude and uninformed, is not contemptible. It has its roots in an important truth: to be a human being an animal must be able to count and to measure. The arts of measurement and computation are indeed not essential to life but they are essential to human life; and were we to lose the faculty for determining how many and how much, man as man would perish. Nevertheless I shall not detain you with the considerations—mainly utilitarian in the vulgar sense of the term—upon which the claims of mathematics to human regard are commonly based. I shall not escort you to the market-place. The transactions there may not be possible without the rudiments of mathematics, but they do not declare the glory of the science nor well show forth its handiwork. We should not discover there the existence or the meaning of that science whose aim it is to think candidly and rigorously whatsoever is or may become susceptible of treatment so austere. The universum of exact thought, the ideal cosmos in which mathematics has its home, is not there revealed. In the transactions of the market-place we should not receive a sense of the majesty and beauty nor a thrill of the power which the creations of such as Euclid and Archimedes, Newton and Gauss, Georg Cantor and Poincaré have transmitted through the mental culture of the world. We should not there gain a sense of "Those things without some use or knowledge of which a man," says Plato, speaking of mathematics, "cannot become a god to the world, nor yet a hero, nor able earnestly to think and care for man."

---

*An address prepared for the meeting of the Department of Colleges and Universities of the Religious Education Association held at Providence, R. I., February, 1911

Neither shall I invite you to contemplate mathematics in its character and capacity as a tool and a standard in other fields of research. I shall not ask your attention to the value of mathematics as disclosed in its countless applications in other branches of science, though, as every one knows, these applications are themselves sufficient to justify its claim to the highest consideration. In this connection the facts are obvious and are not disputed. Such a work as the *Principia* of Newton, for example, or as the *Mécanique céleste* of Laplace, alone sufficient to immortalize a nation or a race of men, is an eternal witness to the dignity and the power of that instrument without which no genius could have been adequate to produce the work. The history of scientific thought, especially of the last hundred years, makes it evident that no other kind of knowledge rivals mathematics as a bond of union between the human mind and the phenomena of external nature. The statement is indeed paradoxical because, first, whilst mathematical concepts are precise and abstract, the facts of the outer world are concrete and ill-defined; and because, secondly, whilst mathematics as a body of logically organized ideas is static like an imperishable architecture, nothing in the external world abides but all there is in perpetual flux, vibrating, trembling, fading and vanishing. Yet the statement is true, as any skeptic may convince himself by recourse to astronomy, mechanics, physics, and the various branches of engineering. The fact is that all branches of experimental and observational science long to avail themselves of mathematics as instrument and norm. All of them aspire and all of them tend to the highest intellectual estate. They wish to be mathematicized; and, in accordance with a law of ideas, they all of them advance, slowly it may be but surely, towards that ideal goal. For whilst ideas are in general, when first they are born, nebulous and vague, they are, whatever be the field in which they arise, under an impulse and law of amelioration; and the path of their striving and evolution leads towards logical perfection and precision of form. An idea is a thing that worships Logic, and it is ever unhappy until, through purification and perfection of form, it gains admission to the dominion of its lord. That such upward striving and refining evolution of concepts are actually taking place is exemplified on every hand, as in chemistry and biology, psychology and statistics, sociology, economics, and anthropology, where mathematical methods, including those of analytical geometry and the calculus, are effectively applied more and more from day to day.

I shall not enlarge upon these considerations for, as I have said, it is not my intention to insist upon them in this connection; not that they are inappropriate to my subject, for whatever is essential to the effective conduct of the homely affairs of daily life, still more whatever helps to advance natural science and therewith, while improving the conditions of human life, contributes to the honor and dignity of man, is by no means to be regarded as devoid of spiritual significance. No, the reason for my stressing the humble utilities and the scientific applications of mathematics but little is that my subject has other aspects which are commonly ignored and which, as I think, are of very great importance. Mathematics deals primarily with implications—it is the science of implication. It has countless applications and these are precious. But it is also rich in intimations of things divine; it owns a wealth of bearings on the universal concerns of the human spirit; and it is to these aspects of the science that I wish chiefly to ask your attention.

Modern mathematics, I mean to say, contains a plenitude of concepts and doctrines that, if properly administered, will shed a radiance throughout the entire range and circuit of our cultural and speculative interests, deepening and illuminating not only our logic (for that has already been done) but our psychology, too, and our philosophy, our conception and sense of art, our theology and our religion. That proposition I believe profoundly. But it cannot be proved syllogistically nor be adequately sustained in an hour's discourse. It asserts the possibility of doing something, and no proof of the possibility can be effective save the performance of the deed itself. But such an enterprise demands the undisturbed quietude of the cloister and must await the uncertain coming of days less shattered by the jostling duties of present academic life. On this occasion I cannot hope to do more than give a hint of my dream, an intimation or two of what I mean, showing a fragment, so to speak, of a mountain range or a momentary glimpse of a sea.

If mathematics may not be said to have an instrument in every head, at least it has a home in every heart. For it is a great mistake to believe that the science is not concerned with the deepest and most universal of human interests. It is the idiosyncrasy of mathematics to contemplate the universe under the aspect of eternity; and it is just this aspect of being that, more than all things else, has engaged the emotions and the thoughts of men in every place and time. Flung without equipment of knowledge or strength into an insecure and unstable world, plunged into the depths of a treacherous universe of matter and force, tossed and torn amid the tumultuous elements of the cosmic stream, naturally men have craved, as the highest desideratum, something that abides; naturally the profoundest and most universal of human passions has been for some everlasting vantage-ground, some eternal rock to stand upon, some unfailing haven of refuge from the ceaseless transformations of a blind and brutal world. The supreme enterprise of the human spirit naturally has been the quest of Permanence in the midst of Change. And theology, science, philosophy, art, and religion are at once fruits of the enterprise and names for the various forms under which it has been prosecuted. All these forms of human endeavor, however much they have differed in respect of method or point of view, have pursued, I say, a common aim. That aim has been the discovery of eternal principles underlying or penetrating the temporalities of the world. The common quest, I say, of theology, science, philosophy, art, and religion has been a quest for Constance, for invariant and ageless forms of being, superior to all vicissitudes, preserving their integrity amid and against the ubiquitous agencies of change and decay. The problem of Invariance—that is the problem with which the Flux of the world has everywhere confronted man, and it is that problem which has dominated the history of thought.

The evidences, abounding on every hand, constitute a genuine embarrassment of riches. I need scarcely point out that the concept of an eternal and immutable Deity is a form of response to the challenge of the flux—it is but the chief among theology's proposed solutions to the problem of invariance. Alpha and Omega, the beginning and ending, which is, which was, and which is to come; I Am that I Am; Father of lights, with which is no variableness, neither shadow of turning: these and their kind are but literary, as distinguished from scientific, descriptions and designations of an eternal and invariant form of being hypothetized or found.

And philosophy has proposed solutions in bewildering profusion. For the beginningless, imperishable, endless Infinite of Anaximander; the "rythm of events," the orderly abiding motion, the λόγος of Heraclitus; the primordial, homogeneous, eternal One of Parmenides and Zenophanes; the unoriginated everlasting quaterion of "elements" of Empedocles; the *νοῦς* of Anaxagoras; the pervasive harmonia of the heavens, with its stable center and fixed numeric intervals, of the Pythagoreans; the permanence of logical laws and thought forms of Zeno, Gorgias and Aristotle; the Platonic ideas, ascending in respect of worth from the lowliest up to that of "Beauty absolute, separate, simple, without diminution and without increase or any change," and terminating in the supreme idea of the Good; these familiar examples, selected mainly at random, and innumerable others, as the Hegelian Absolute, the infinite unalterable Substance of Spinoza, the number, the shapes and the total motion of "the seeds of things" of the ancient Atomists, and so on and on, do but serve to remind us of philosophy's age-long concernment with the problem of invariance and of the wealth of answers she has proposed in the course of time to the question of what is eternal.

But theology, religion, and philosophy are far from being the only products or the only manifestations of mankind's interest in everlastingness. For whatever is to be a genuine ideal must present itself in the guise not only of a congenial good but of a good that is everlasting; evanescent excellence, transitory perfection is not enough, if indeed it be not a contradiction in terms; a perfection that is of the essence of a genuine ideal is a perfection that abides; it must endure. And so it is that, wherever men have pursued the ideal, they have sought the eternal. Whether we note the characteristic faith, achievements and aspirations of art, her immutable archetypes of beauty, her imaginative mystical discernment of their immobile presence in the flux of the sensuous world, and her selection, for expression, of interests that are permanent and universal in a figure or a scene, as when, for example, the genius of a Millet makes the peasant cultivator of the soil "typify the husbandman of all ages and countries," or sculpture represents the imperturbability of Nature gazing silently and endlessly upon the conflicts of heroes, and men and gods; whether, as in the domain of the older jurisprudence, we meet with the notion of a *lex naturæ,* of a fixed and perfect standard or prototype of governance above and beyond the changeful polities of men; or whether it be in modern science that we witness on every hand so great concern about constants, about uniformities and laws, about conservations of energy and mass: wherever we look, wherever we contemplate human endeavor at its best, we behold, in one or another of its manifold forms, the same phenomenon: quest of permanence and cosmical character in the turmoil and chaos of the sensuous universe.

What of it? "Let the foregoing contention be granted; what," you may ask, "are its bearings on the subject in hand; what relation has the thesis to the spiritual significance of mathematics?" The question is pertinent. To the answer, which is a twofold one, I beg to solicit your especial attention, as in it lies the center of my communication. I have said that it is the idiosyncrasy of mathematics to contemplate the universe under the aspect of eternity. There is now evident a sense in which the statement requires to be modified, for we have just seen that it is being's eternal aspect that has been the subject and the interest, not only of mathematics, but of natural science as well, and of theology, philosophy, religion, and art. But there is another sense in which the statement must be regarded as just, the sense, I mean, in which the reference is to achievement as distinguished from spirit and aspiration. In spirit and aspiration, in motive and aim, science and theology, philosophy, religion, and art are one with mathematics; all of them, consciously or unconsciously, aim at congenial goods that shall be everlasting; all of them aim at rescuing man from "the blind hurry of the universe from vanity to vanity"; all of them seek to vindicate the world as a world of abiding worth. But in respect to the success with which the great allies have prosecuted their common enterprise, mathematics is preeminent. By virtue of her achievements and triumphs, she stands alone. For it is not to art, nor to theology, nor to religion, nor to philosophy, nor yet to natural science, inestimable as their achievements have been and are, but it is to mathematics that we owe the most precious of certitudes, the knowledge, namely, that there exists an ideal cosmos, a universum of ideas and relations, perfect in its order and harmony, pure in its beauty however austere and cold, infinite in the wealth of its spiritual content, and everlasting. The discovery and progressive exploration of that world is the supreme triumph of what I have called the supreme enterprise of the human spirit. Were it to fail us or were our vision of it to vanish, naught of permanent worth would remain to sense or understanding; chaos and night would be universal. But it will not fail. Time does, indeed, devour many things that are dear to us in the world of sense.

> The cloud-capped towers, the gorgeous palaces,
> The solemn temples, the great globe itself,
> Yea, all which it inherit, shall dissolve,
> And, like the baseless fabric of this vision,
> Leave not a rack behind.

But the ideal cosmos will abide. That world is the great Invariant. It is the fundamental solution of the problem of permanence in the midst of change.

The second part of my answer, which as I said was to be twofold, relates to the theory of invariance itself. Mathematics, as we have seen, is itself, taken in its entirety, a great invariant, an infinite and permanent form of being, invariant I mean in the sense in which it is identified with its subject-matter, with the ideal cosmos it contemplates. But in addition to this there exists, as you may know, a mathematical theory of invariance itself, a doctrine which, it is curious to observe in passing, is itself an invariant constituent of the invariant content of the ideal cosmos, so that the latter is a self-illuminating world, containing within itself the means of self-understanding. It is an astonishing fact that in the course of all the centuries, neither religion nor art nor theology nor philosophy nor natural science paused in its quest of invariance to tell what an invariant is; no one of them gave the criterion by which invariants, in the event of their being found, might be certainly identified as such; no one of them ever defined the concept in question in a way that rendered it available for the purposes of rigorous discourse. That task, reserved for mathematics, has been performed. Not only that, but the content of the notion as such has been explored and its implications elaborated in the structure and form of a colossal doctrine. That doctrine is the theory of invariance, one of the noblest creations of the nineteenth century, not only important as an instrument in almost every other department of mathematics but in itself an edifice of much stateliness and beauty. I cannot undertake here to present the theory even in its barest outlines. A good grasp of the general conception and the rudiments of it can be acquired in a few weeks, a working knowledge in a few months, and mastery in a few years. The doctrine is abstract. Has it applications to the concrete world of sense? The physicist will tell you that it has and the geometrician's whole interest centers in the question of those properties and forms that remain unchanged despite the swirl and stress of countless hosts of transformations. As to philosophy, the mathematical concept of invariance has not, so far as I am aware, been availed of in that domain. In taking leave of the theme I venture to express the belief that a properly equipped student of philosophy could render a very valuable service to criticism by employing the concept in question in a fresh review of the history of philosophic thought, using it as a criterion or discriminant for the classification of movements and doctrines and for a comparative estimation of their achievements and values.

It is natural to expect that a discourse upon the spiritual significance of mathematics will be largely, if not chiefly, concerned with the idea of infinity, inasmuch as this idea has always played a principal rôle in religious and philosophic thought, and because it has been for a hundred years and is at the present time one of the leading subjects in mathematical investigation. Eternality and Infinity are indeed the two eyes of mathematical science.

Poincaré has gone so far as to say that nothing, unless it be infinite, can in strictness be a scientific subject. I have already dwelt at length on the interest of mathematics in the eternal aspect of Being. Its interest in Being's infinite aspect might as well have been chosen instead. The temptation to deal with it even now is strong. I should yield to it but for the fear of wearying you and if I had not elsewhere* treated one phase of the matter at considerable length. I shall, therefore, confine myself to a signalizing word. Men have employed the term infinity so vaguely throughout so long a time that it has come to be regarded as a fine example of the indefinable, and they are reluctant to believe, what is nevertheless a fact, that mathematics not only has found a perfectly clear and precise definition of the term but, by constructing a beautiful and imposing theory of infinitude, has shown that the infinite, so far from being inaccessible to human reason, is its proper domain. With the mathematical doctrine of infinity an occasional philosopher has gained some acquaintance. To the theologian, who is presumably most in need of its help, it has thus far proffered its service in vain. The student of natural science, after ignoring it for a time as he ignored the geometry of hyperspace, has begun to avail himself of its simpler portions, and he may ultimately claim it for his own by right of discovery.

Finally, we may ask how long an apprenticeship to mathematics one must serve in order to gain some quickening sense of its spiritual significance. The answer depends. To one for whom mathematics can be naught but a task or to one for whom it is only a tool, its nobler meaning will not be revealed. But an ingenuous youth of fair talent and having some native sensibility of the radiance and glory of things not revealed in common light, if he have the fortune to be guided by one himself imbued with the spirit of mathematics and not constrained by unpropitious circumstance to linger with his charge upon the steps, may be conducted before the close of undergraduate years into the temple itself.

C. J. KEYSER

---

*The message of mathematics to natural and rational theology. *Hibbert Journal*, vol. vii, January and April, 1909.

ATHLETIC IDEALS*

THAT educators are alive to the importance of physical training in the making of men is fully attested by the existence of the great gymnasiums, with their expensive equipment, and by the number and caliber of the instructors employed in the departments of physical education in our colleges. President Butler states that "it has been the long-standing policy of the trustees (at Columbia) to promote in all possible ways physical exercise and undergraduate sports," and a resolution of the trustees as far back as 1897 contained the following:

> "So closely are physical and intellectual development connected, that a university which seeks primarily to afford mental training cannot afford to disregard the physical side. A gymnasium for Columbia, therefore, cannot be regarded as a luxury, but as a legitimate part of the University, and is, in some respects at least, fully as essential as any of the purely educational buildings."

Proper training of the body is now generally recognized to tend "directly to a higher standard of scholarship and better intellectual work." It also makes for moral development and strength. "Many a man carries on his morals what he ought to be carrying on his muscles." The wonderful growth of the physical departments of the Young Men's Christian Association all over the world, and the rapid spread of Sunday School, Church, and Settlement athletics bear witness to the emphasis now placed on the physical by moral and religious leaders.

Now it is my belief that athletics or athletic exercises are the most effective means of physical training. This is true mainly because of the elements of recreation and competition which prevail in athletics, and without which physical training is so often flat, stale, and unprofitable. It is remarkable to note the immediate effect of the introduction of even the smallest amount of competition and

---

*Reprinted from the *Columbia Alumni News,* vol. iii, no. 3, Sept. 29, 1911 the spirit of recreation into gymnastic exercises. So simple a game as passing medicine balls along two lines of men to see which one will first reach the end will at once put snap and vigor and team spirit into a class whose movements a moment before were half-hearted, careless, and perfunctory. Physical educators are coming to recognize this fact. At Columbia, Dr. Meylan has introduced into the regular gymnasium work as much athletic exercise (out-of-doors as well as in the gymnasium) as his equipment and the size of his staff of instructors will permit.

Intercollegiate athletics, sanely and reasonably regulated, are, to my mind, beneficial, and the work of raising the standard of intercollegate athletic achievement at Columbia should be enthusiastically carried forward. Intercollegiate athletics stimulate a general interest in sport among the students. They are also of immense value in drawing out and giving expression to college or community spirit. But for these two services, however, they would certainly be indefensible when we stop to consider the enormous sums of money spent on them and the comparatively few students who can participate in them, and these students, as Dr. Gulick indicates in a recent *Outlook,* the very ones who because of their athletic fitness are least in need of the training afforded. Because intercollegiate athletics are mainly of value in connection with college spirit and the social consciousness of large masses of students, it is vitally important to keep them clean and on a high plane. The "anything to win" spirit, if allowed to get a foothold, will contaminate the student body with astonishing rapidity, lowering ideals of honor, honesty, and fair play, until athletics become a curse to the institution.

The evils which may grow out of intercollegiate athletics are many. Intense competition between rival colleges has led to professionalism—the hiring of athletes, whether by the payment of salaries or by means of the more subtle but no less corrupting "scholarships." In many colleges ridiculous and unreasonable customs have grown up. During the football season many players never attend a single lecture. Training quarters are often established for a week or two at a time in places many miles from the campus, and completely out of touch with life at the institution which the team represents. For some weeks there is exhibited the spectacle of the tail wagging the dog.

The handling of enormous sums of money by inexperienced and irresponsible students is also extremely harmful and not calculated to teach the value of money, to say the least. Most institutions have now placed athletics under faculty or graduate control. In athletic associations, which are obliged to rely largely upon alumni subscriptions, supervision is pretty certain to be demanded, and any cause for lack of confidence is disastrous to the success of the association. "I work hard for my money," said an alumnus when asked for a subscription. "I want to be sure when I hand it over to you that it isn't spent on diamond studs for prizes, or in running around in taxicabs, or wasted in slip-shod management." It is an interesting fact, in this connection, that the most strongly developed tendencies toward extravagance in team expenditures, rewards, and prizes, occur in those institutions and with those teams that have been signally successful in athletic achievement.

Our American system of professional coaching also, while probably turning out superior teams, is open to great objections. While there are exceptions to the rule, and Columbia has been fortunate in the main in securing superior men, the typical professional coach is a man far below his pupils in education, intellect, and ideals, and to set him up as "a little tin god on wheels," to be admired and imitated, tends to offset to a degree the broader educational efforts of the institution. If the colleges could come together and agree to do away with all professional coaching, I believe it would be a splendid thing for American athletics.

After all is said, and it cannot be too strongly emphasized, it is in general participation in athletics that the greatest good is to be found. If we recognize the undoubted benefits of athletics, then we must agree that the more students who can be brought to participate actively the better; and we must revise our systems and bend our energies toward making this possible. The ideal athletic system would be one which not only provided for reasonable intercollegiate schedules, but which also would provide for sufficient intra-mural contests so that every student in the institution would be on some team. Series of inter-class, inter-department, and inter-fraternity events would give full opportunity for competition and interest.

Although the work of building up the new Athletic Association at Columbia and setting it on its feet has demanded most of our time and attention for the past two years, we have been able to make a start toward the ideal of general participation in athletics. The boathouse has been kept open, several new boats purchased, and general rowing for pleasure and recreation has been encouraged. The opening of the University gymnasium at night, a suggestion which came from the Athletic Association, has also afforded opportunity for exercise to many students and alumni formerly unable to take advantage of its facilities. One of the most unique and interesting events in undergraduate life of the past few years was the inter-fraternity baseball tournament last spring. A rule debarring Varsity players threw open the positions to the less skilful—the class whom we particularly wished to draw out on the field. The contests were most exciting. Great enthusiasm was shown, and the tournament fostered good feeling and pleasant acquaintance among the members of the various chapters. Plans have already been laid for an inter-fraternity track meet this fall. I hope that this general policy may continue to obtain and that the athletic authorities will give to it their best thought and effort. I do not advocate the abolition of intercollegiate contests. I believe in them. But I do advocate the extension of the benefits of athletics to all of the students instead of to a very few. To follow out this policy in an adequate way would necessitate a considerable increase in equipment—fields, lockers, boat-houses. But it would mean the turning out of hundreds instead of scores of men who had tasted the delights of athletic competition, who had learned to fight hard and to play fair, and who had learned the dignity of the human body, and the joy as well as the vital importance of keeping "fit" in order better to enter upon, and to overcome in, the battles of life.

James Myers

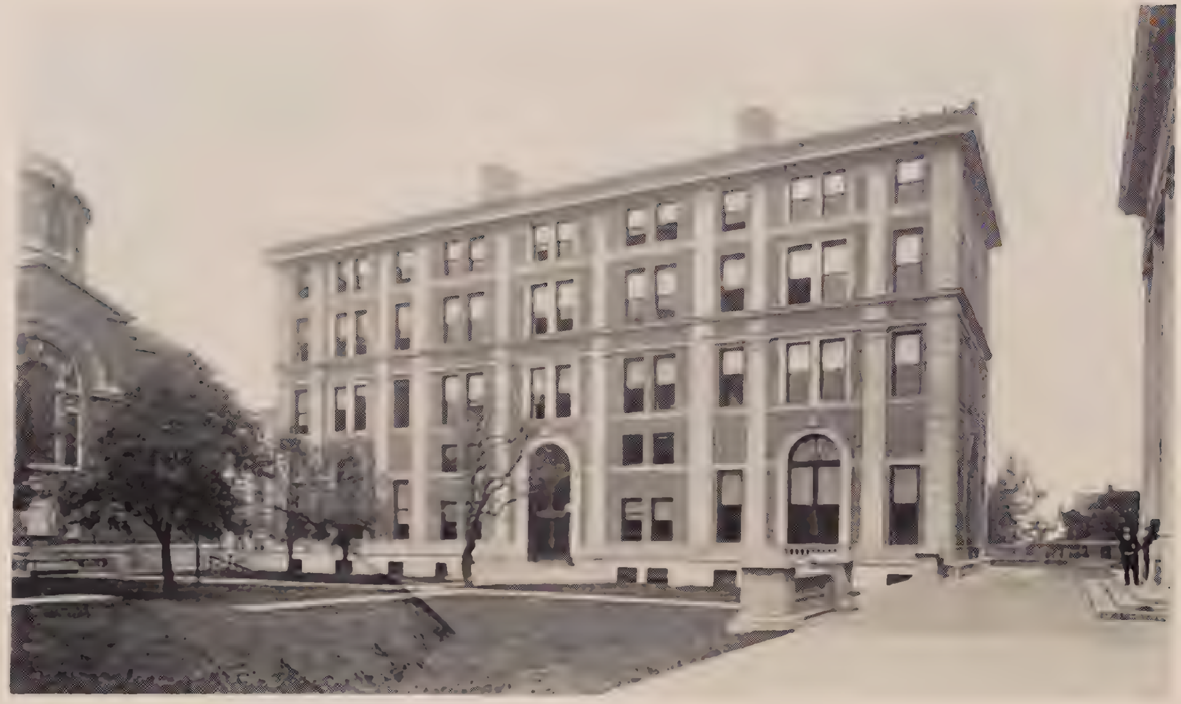


Photo by Ambrose Fowler

PHILOSOPHY HALL

EDITORIAL COMMENT

President Butler's Decennial

Elsewhere in this number of the QUARTERLY will be found an account of the dinner of October seventh at the Waldorf-Astoria when President Butler was the guest of several hundred alumni who desired to express their appreciation of the signal services he had rendered to the University in the decade that he has been its head. The account speaks for itself and no comment is needed to declare its significance. It was a spontaneous tribute to one who has been for ten years entrusted with a great task which he has accomplished with conspicuous success. It was a testimony to the high esteem in which the President is held as a man, as an educator, as an administrator and as a public servant.

But there is one point of special significance which it may be well to emphasize. Most even of those who are familiar with educational organization do not fully understand the unique position of the American university president in public life, and also the opportunity that his position gives him for public service. The university president is an American invention; in no European institution is there any officer of corresponding powers charged with corresponding responsibilities. And perhaps it is due partly to this officer in our educational system that our American universities have been forging to the front. In the characteristically tactful speech, in which President Butler accepted in behalf of Columbia as a whole the eulogies proffered to him personally, he gave a most luminous account of the special function of the university president. It is a high standard that he set for that exalted official; and it is a standard that he has himself attained.

The University and the Fine Arts

We are glad of the opportunity to publish the address on the "Relation of the university to the fine arts" which was given at the opening of the academic year by Dr. Edward Robinson, the Director of the Metropolitan Museum of Art. Dr. Robinson says many things which all who are interested in the best development of Columbia may well take to heart.

It is perfectly true that the University has lagged behind in providing opportunities for the study of the fine arts (we mean by this term specifically the study of civilization as manifested in art), and we must acknowledge this lack, even though our position in New York should be peculiarly favorable to such work. We may, therefore, welcome very cordially Dr. Robinson's clear statement of the nature of such study of the fine arts as can be carried on effectively at a university. This is a matter about which there has been, first and last, a good deal of misunderstanding, arising through a kind of confusion between the ideals of the practical artists and those of the students of history. A clear conception of the two points of view ought to remove all confusion. We agree with Dr. Robinson that the professional teaching of painting and sculpture to artists does not properly come within the ordinary field of university work. We should indeed be the last to minimize the great practical value of such excellent work in drawing and painting and designing as is done near us in the studios of the Academy and of our own Teachers College, but, given the requisite ability, a person may profit by work of this kind with far less general training than a good university must exact of its students. Such studios do effective work even when they are not near a university. It almost seems a mistake that the kind of study which Dr. Robinson so strongly advocates, and which has been developed in some foreign universities and is now getting a foothold in certain of our leading institutions, should ever have been called the study of art at all, since it might equally well, or better, be thought of as a form of history. Professional artists are very often out of sympathy with it, and when it degenerates, as it sometimes does, into esthetic "gush," they are quite right. When, however, it becomes the study of an important civilization as that civilization is manifested in art, it is surely work of high value. In its lower stages—say among college students—it has a direct educational value, and in its higher stages it calls for the knowledge and range of scholarship which it is the function of a university to foster. Whether we believe such study induces what is called culture or not is a minor matter, since few people gain this desirable quality by hunting after it.

Dr. Robinson's remarks upon keeping the Greek element in our education through a knowledge of Greek art are true and timely, though it must always be but a partial understanding of Greek civilization which comes to us through its architecture and plastic arts alone. The immense improvement of the Greek collections in the Metropolitan Museum since Dr. Robinson came to New York show him to be a man of deeds as well as of words in this matter, and he certainly deserves the thanks of student and citizen for his work.

In one point we think Dr. Robinson is more pessimistic than he needs to be. In speaking of Greek art it is certainly an error to say that the number of courses in this subject is not larger than it was twenty-five years ago. Then not a single institution in this country had a well organized system of courses in Greek art; now the leading universities offer good opportunities for study in this field. Those who have charge of the school at Athens report a great advance in the training of the men and women who now go out from this country, a fact which is directly due to the work of our universities. This improvement in the American work has received more ample recognition abroad than it has in our own country. But the fact remains that with us good work abroad does not certainly lead, as Dr. Robinson remarks is the case in the German and French universities, to positions at home; and this of course must check progress. And yet progress there has been, so that the situation is distinctly a hopeful one. For the later periods of art, in which there is likely to be a still greater demand for competent instructors and museum officers, matters are in a less developed stage, but here the work of the Academy in Rome may well prove a most important factor in the advance. Thus when one considers the many difficulties involved in the present social conditions of our country, there seems no need to feel disheartened because the growth of an interest in art in our colleges and universities has been slow.

We earnestly hope that here at Columbia Dr. Robinson's timely words may be one influence to hasten the day when the University shall be able to make the great opportunities for the study of art offered in the city of New York more fully available to its students.

Educational Reciprocity

While commercial reciprocity even between contiguous nations may receive at times an unanticipated check, it is a most significant sign of an old order changing that an educational reciprocity between the great nations of the world is becoming with every year more widely extended and vastly more important in its whole significance and bearing. The consequence of sending our American scholars to the various countries of Europe and of receiving, in our turn, so many of their scholars here, is not only to bring from each land to the others the particular results of individual scholarship, but it is also to bring to the countries involved in the interchange the knowledge of new conditions and new environments derived from an intimate acquaintance with them on their own ground. All of this undoubtedly contributes to the growing intelligibility among nations that is a characteristic of the present day. Quite as unmistakably, it is a sign of the effectual breaking down of old barriers that sometimes in the past have seemed to hedge a nation's learning as a thing of its own possession. To the minds of the people at large it is a most significant object lesson of the community of the world's learning as the property of all, which knows no boundaries of nationality or language, and recognizes in the university that disseminates it, wherever it may be, an intermediary both of universal knowledge and of universal truth.

Columbia has participated actively in this movement from the beginning and every recent year has seen a number of the important and well-known scholars of Europe engaged in the work of instruction in the class and lecture rooms of the University. The list this year in character and number is an altogether unusual one and is doubtless more widely representative than any that we have previously had. It includes three well-known names from Germany, Professors Schick, Verworn and Lindner, two from France, Professors Lanson and Hadamard, Professor Johannsen of Denmark, Count Luetzow of Bohemia, Sir Frederick Pollock of England, and for the first time, as indicating the part already played by his country in the concourse of nations, an exchange professor, Dr. Nitobe, from Japan.

Graduate Courses in Highway Engineering

There has been established in the department of civil engineering through the liberality of Mr. Charles H. Davis, C. E. 1887, a course of advanced highway engineering study to be in charge of Professor Arthur H. Blanchard. These advanced courses are so formed and of such nature that they constitute for those holding engineering degrees qualifications for the master's degree. This advanced work is unique in character in several respects. It is given in two sessions and will require attendance at Columbia University from December first to April first, two years in succession. The reasons for this particular program are given by Professor Blanchard in a paper presented last June before the Pittsburgh meeting of the Society for the Promotion of Engineering Education, *i. e.*, to permit young engineers engaged in highway work to pursue the advanced highway courses now established here by securing leaves of absence for the period of suspension of their field work during the winter. The installation of these courses, again, affords opportunities for advanced highway engineering studies not heretofore offered in this country, but practically parallel to the best work of a similar character done in the Ecole des Ponts et Chaussées of France.

The exacting demands for all classes of highway transportation in the United States makes the establishment of these courses a public service of no ordinary character. While there have been many modern improved roads constructed in this country, they have too frequently been ill judged in design, unfortunate in choice of materials, and badly maintained. Even such highways, however, have stimulated a strong and constantly increasing desire on the part of almost every community to secure the advantages due to effective and convenient highway transportation. It is the purpose of these graduate courses to give educational training of an advanced character, which shall constitute the qualification for young civil engineers to construct and maintain the best quality of highways in all localities, and so to serve the public interest towards attaining the same degree of efficiency and economy in highway service as in France, Germany, and other European countries. The establishment of these courses marks the beginning of a highly important epoch in the engineering work of the University.

Admissions Committee

While Harvard has been putting into operation her new plan of special entrance examinations as tests of power, and at Chicago the whole grouping of entrance subjects has been changed, there has been no modification in the formal procedure here at Columbia. We have, however, been going forward none the less satisfactorily on that account. Such careful personal consideration of each case as it is possible for the chairman of our committee on admissions to give is cumulative in its effect from year to year, and is steadily building up an attitude of confidence on the part of schools and parents. As a result, the committee is obtaining a kind of information about candidates for admission which it would be extremely difficult to elicit by any type of examination that human ingenuity could devise.

Opening Exercises

The opening exercises of the one hundred and fifty-eighth year of the University were held on Wednesday afternoon, September 27, in the Gymnasium. The opening address, which will be found in full elsewhere in this issue, was delivered by Dr. Edward Robinson, Director of the Metropolitan Museum of Art, honorary doctor of laws and professor in the University. Dr. Robinson was introduced by President Butler, who first delivered the following words of welcome:

It is my agreeable duty and my privilege to bid welcome the members of this University, new and old, as our ancient *alma mater* opens the work of the one hundred and fifty-eighth academic year.

It is our habit to come together for an hour on this first afternoon of the new term in order that we may begin our year's work with a sense of solidarity, of fellowship, of common purpose, and in order that we may dwell for a short time upon some one of the infinitely varied and important interests which our wide scope includes.

The beginning of the academic year finds us all facing forward and in a spirit of high hope. I like to think that those who come back year after year, as teachers, as graduates, or as students, feel a new touch of strength and enthusiasm from the contact, like Antaeus with his mother Earth. I like to think that those who enroll themselves at Columbia for the first time do so with some recognition of what this fellowship means, of what opportunities it offers, and of what stern, high obligations it imposes.

This great University of ours has been going on its way these many, many years. There have been built into its fabric untold lives of sacrifice, of scholarship and of service; and it is into such a company, such a fellowship, such a communion that we welcome those who are with us for the first time.

I take particular pleasure in the striking additions to our already splendid company of scholars. We welcome back our old friend and colleague, Professor Baldwin, who returns to us from Yale. We welcome to his place the professor of highway engineering, Mr. Blanchard, who comes to us from Brown. We note with satisfaction that our scientific traditions are to be strengthened and our scholarship enriched by the high service of Professors Harper and Smith, who have joined our ranks from the Universities of Wisconsin and of Chicago.

It is noteworthy, too, that every year emphasizes the strong character of our international relations and our international influences and friendships. We greet today as Kaiser Wilhelm professor, Dr.

Schick, of the University of Munich, who comes to us to continue worthily the already long line of scholarly representatives from the German Empire. We greet two great French scholars, a man of letters and a man of science, M. Lanson and M. Hadamard, who are to be with us and bring to our students and to our company, the scholarship, the point of view and the sympathy of the learned men of France. A little later, we are to count among our number for some weeks, one of the most eminent educators of Japan, Dr. Nitobe. Still later in the year we are to have with us yet other of the representatives of the world's learning and the world's culture.

I speak of these things this afternoon, not merely to express the pleasure and the honor that we all feel at welcoming these colleagues and friends, but in order that we may reflect upon the international character of science and of scholarship. These are the ties that truly bind. Scholarship and science have no rivalries that are material or commercial, but only friendly controversies and contests to attain the clearest possible view of the truth. While the nations of the earth find themselves, by the machinations of speculators and the weakness of politicians, embarking on careers of bitterness and jealousy and antagonism, the world's scholars and the world's men of science are constantly binding it more closely together in bonds which one of these days the power of money and the power of greed and sordid ambition will never be able to break.

So that a member of a company of scholars and scientists such as is ours, whether a learner or a guide of those who learn, comes into a fellowship which is as wide as the world itself. Our ties are with scholars and men of science everywhere. Our doors are open to them all. Our minds are receptive of their teachings and their ideas, and we greet them, when they come to us, as brothers, not for a moment as strangers. Membership in a university involves these things, and membership in this University, for peculiar reasons,—reasons connected with its history, its situation, and its policies,—involves these things in extraordinary and stimulating fashion.

To the work of the one hundred and fifty-eighth year in a university so conceived, so planned and so conducted, you are welcome, heartily welcome, for work, for pleasure, for growth, for service.

* * *

Press Activities

Since the record of the activities of the Press contained in the June number of the QUARTERLY a number of important volumes have been added to the list of its publications and others now in process of printing are destined for immediate issue.

Four volumes of Columbia University lectures have appeared: Professor Henry E. Crampton's "Doctrine of evolution: its basis and its scope", originally delivered as the Hewitt Lectures at Cooper Union, in 1907; Professor William W. Lawrence's "Medieval story and the beginnings of the social ideals of English-speaking people", delivered as the Hewitt Lectures of 1911; Professor Frederic S. Lee's "Scientific features of modern medicine", delivered as the Jesup Lectures at the American Museum of Natural History, in 1910; and Professor Leonard T. Hobhouse's "Social evolution and political theory" delivered during the present year as the first lectures on the Julius Beer foundation.

Professor Crampton's "Doctrine of evolution", according to his preface, has for its purpose to describe in concise outline the basis of the doctrine of evolution in the facts of natural history and to review its universal scope. It deals, in carrying out this plan, first of all with matters of definition, with the essential characteristics of living organisms and with the evidences of organic evolution, and ends with a consideration of the various aspects of human evolution, physical and mental, as a special instance of the general process. The author modestly calls his book "a simple message to the unscientific". No recent book has stated so clearly and intelligibly the whole matter of evolution in its present-day aspect.

Professor Lawrence's "Medieval story" describes and discusses the typical masterpieces of medieval narrative—Beowulf, the Song of Roland, the Arthurian Romances, Reynard the Fox, Robin Hood, and the Canterbury Tales. The object of the book, as stated by the author, is "to reveal the charm of medieval literature, and to indicate its significance for modern times."

Professor Lee's "Scientific features of modern medicine" presents in clear-cut and untechnical language an account of modern medical accomplishment and aim. The book begins with a sketch of the normal human body. The nature of disease is discussed; modern methods of diagnosis and treatment are considered; the principles and the results of the use of serums and vaccines are described; the present status of the problems of cancer and tuberculosis is given at considerable length, and a chapter is devoted to the brilliant achievements of surgery. The book admirably accomplishes its purpose to illustrate the genuinely scientific character of modern medicine, its great change from the medicine of the past, and its hopeful outlook for the future.

Professor Hobhouse's "Social evolution" discusses in its several chapters: the meaning of social progress; progress and the struggle for existence; eugenics, its value and limitations; social harmony and the social mind; social morphology; the growth of the state; evolution and progress; social philosophy and modern problems; and the individual and the state. The book is an important and timely contribution to the literature of a subject of world-wide interest by the professor of sociology in the University of London, one of the best known writers of England in his particular field.

Six volumes have been added to the already long list of the Columbia University Studies in English: Charlotte E. Morgan's "Rise of the novel of manners"; Rupert Taylor's "Political prophecy in England"; Harry G. Paul's "John Dennis, his life and criticism"; Morris LeRoy Arnold's "Soliloquies of Shakspere"; Frank A. Patterson's "Middle English penitential lyric"; and Allan F. Westcott's "New poems by James I. of England". This last book is a contribution in an interesting way to the history of English literature. No complete collection of the King's poems was published during his lifetime. More than half of these in the present volume are from a hitherto neglected manuscript in the British Museum, and are now printed for the first time. They include amatory lyrics to Anne of Denmark, two long love poems addressed to "Lady Glamis", sonnets on political affairs in Scotland, and other pieces of historical and biographical interest. The introduction contains an extended account of James's practice and patronage of poetry in Scotland and later in England, based in part on material gathered from accounts of the royal household and from similar documents in the Records Office and in the British Museum.

A new volume in the Studies in Romance Languages and Literatures is the "Symbolism of Voltaire's novels, with special reference to Zadig", by William R. Price, and in the Studies in Comparative Literature, "Greek romances in Elizabethan prose fiction", by Samuel Lee Wolff.

In the new Columbia University Contributions to Anthropology the initial volume has appeared with the title "Kwakiutl tales", by Professor Franz Boas, editor of the series. The volume contains a large number of Indian texts, with parallel English translations, and considers in detail the mythology of one of the tribes of Vancouver Island. Two additional volumes of this series are under way: "Coos texts", by Leo J. Frachtenberg, collected among one of the vanishing tribes of the coast of Oregon; and "Contributions to the ethnology of the Salish tribes", by James A. Teit.

A number of other volumes are soon to appear in the various series published by the Press. Among these are three in the Studies in English: "Mathew Carey, editor, author and publisher", by Earl L. Bradsher; "The exemplum in the early religious and didactic literature of

England", by Joseph A. Mosher; and "Thomas Dekker", by Mary L. Hunt.

One of the most important books among the recent undertakings of the Press is the series of lectures, recently delivered as the Carpentier Lectures of 1911, by Sir Frederick Pollock, on the "Genius of the common law". The volume is at the present time in process of printing and should appear early in 1912. The lectures attracted at the time of their delivery a wide interest in and outside of the University, and the book should find an exceptionally large clientele, not only among those who are professionally interested in the study of law, but among the great public who are concerned with the relations of law to society and the life of the nation.

* * *

Religious Activities

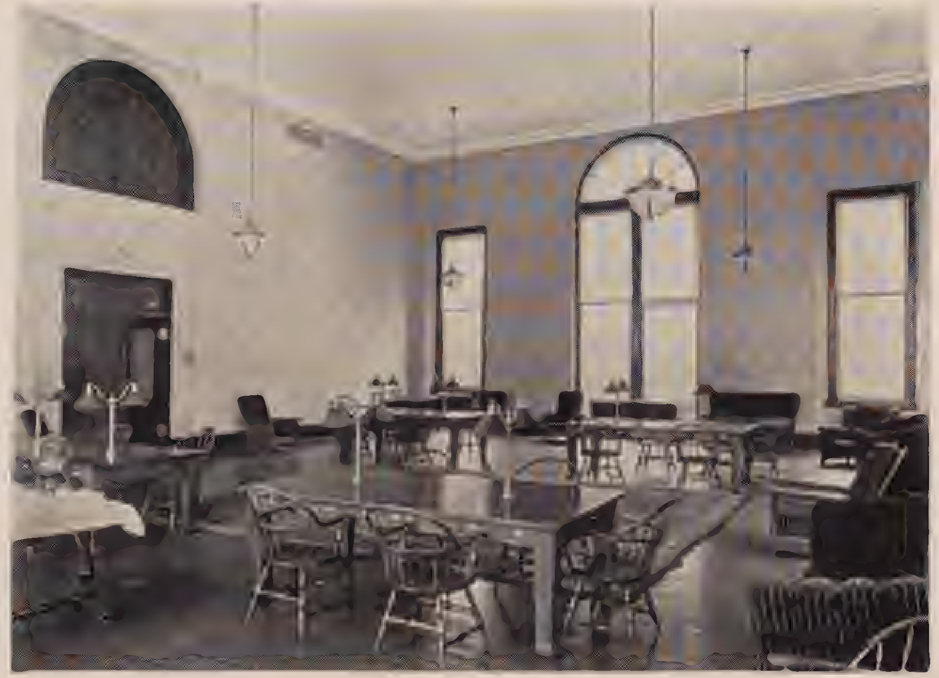
In the absence of Professor G. W. Knox on his trip around the world, the college course in Fundamentals of Religion is given by Professor Thomas C. Hall, of Union Theological Seminary. The subject as treated by Professor Hall includes the place of religion in ethics and social organization.

The Chaplain of the University preached the Baccalaureate Sermon at Worcester Academy on June 11, and also delivered the sermon at the opening service at Syracuse University on September 24. During the summer he gave a course of instruction on the Bible at the Pocono Student Conference, and was later the guest of the Chinese Student Alliance Conference at Princeton.

Among the visiting preachers at the week day chapel services have been the Rev. Hugh Black, D.D.; Rev. C. F. J. Wrigley, D.D.; and Rev. George C. Peck, D.D.—The Rt. Rev. Charles Sumner Burch, S.T.D. (Columbia), Bishop Suffragan of New York, was the guest of honor and speaker at the opening meeting of the Churchmen's Association, October 19.

The Brotherhood of St. Andrew sent as delegates to the Buffalo Convention, October 18–24, Mr. Walter M. Stillman and Mr. Archie Tsen.

Mr. F. E. Barnes has been appointed director of the Boys' Clubs at the Spring Street Neighborhood House, where the Columbia Y. M. C. A. has entire charge of the boys' work.—Mr. H. R. Weir of the City Y. M. C. A. is holding regular office hours at Columbia in order to promote student interest in industrial welfare work.—About two hundred men attended the usual reception to the freshman class; the speakers were Dean Keppel, Professor Lord, Chaplain Knox, Secre-



WOMEN'S RECEPTION ROOM, PHILOSOPHY HALL

tary Myers, and representatives of the athletic teams and other organizations.—The Bible and mission study classes opened with a special chapel service, at which the Rev. Robert Davis of Englewood made the address.—On October 15 an address was delivered by Secretary Myers at the young people's meeting of the Calvary M. E. Church on the subject, "Religious influences in college life". This meeting was attended by a number of Columbia students, and the Christian Association is planning for group visits to other New York churches during the course of the winter.

The cabinet of the Barnard Y. W. C. A. gave a reception on October 11 to Miss Ethel Rather, director of the Women's Religious Work, Miss Mary Patchin, secretary of the Barnard Association, and Miss Alice Nourse, formerly of Kansas University, who has been appointed general secretary of the Y. W. C. A. at Teachers College.

* * *

The Pulitzer School of Journalism

In view of the recent death of Joseph Pulitzer, the following extracts from the agreement made between him and the Trustees of Columbia College in the City of New York, accepted by the University July 20, 1903, will be of interest.

Whereas, the donor desires to establish and endow a School of Journalism in Columbia University and . . . has given $200,000 and has agreed . . . to give upon or before June 1, 1904, the sum of $800,000 to be used as hereinafter provided; and upon the following conditions agrees also to give an additional sum of $1,000,000 on or before the end of the third year of the actual operation of the School of Journalism:—

1. That the donor shall be satisfied that for three years the School has been and then is in successful operation.

2. . . . .

3. . . . .

And whereas, the University is to provide a suitable site upon land owned or to be acquired by the University for a building for the accommodation of the School of Journalism, and out of the moneys received under this agreement is to erect and maintain thereon said building, and also to maintain and conduct the said School of Journalism and after receiving the second million, to make the said awards. . . .

Now this agreement witnesseth that . . .

The plan of organization and courses of study in the School shall be prescribed by the University, but in the making of this plan, the University shall be influenced by the advice and conclusions of an advisory committee, composed of the foremost journalists and editors possessing expert knowledge on the subject. The members of the board shall be appointed by the University on the nomination of the donor, except the President of the University, who shall be *ex officio* a member. . . . The course and plan so adopted may be modified from time to time by the University, as experience or changing conditions may render necessary or desirable. . . .

AGREEMENT OF MARCH 19, 1904

Whereas, the donor has found it difficult to satisfy himself in the discharge of the obligation incumbent on him of naming the advisory board, having been already disappointed by the obstacles he has encountered, and he is apprehensive of further disappointments of that nature during his life, and is moreover in precarious health; and is desirous for these reasons to be entirely free to defer action on his part, and to postpone, for the present, and possibly until after his death, the establishment of the School of Journalism.

1. Now therefore, in the event that the School of Journalism shall not have been established or shall not have been for three years in actual and successful operation at the time of the donor's death, he covenants that the final sum of $1,000,000, or so much thereof as may not have been paid in his lifetime, shall be paid to the University by his executors or administrators, as soon as evidence satisfactory to them is furnished by the University that for three years the School has been and then is in successful operation.

2. . . . the donor shall not be bound to nominate the members of the advisory board within any particular time, but is at full liberty to do so whenever he sees fit. In the event, however, that the donor has not before his death made said nominations, the advisory board shall in that case consist of the President for the time being of Columbia University, and also the persons named or designated as follows: Hon. Whitelaw Reid of New York, Dr. St. Clair McKelway of New York, Hon. John Hay of Washington, Mr. Victor F. Lawson of Chicago, General Charles H. Taylor of Boston, Mr. Melville E. Stone of New York, Mr. Samuel Bowles of Springfield, Mass., and of the principal editors of the following named newspapers: New York Times, New York Herald, New York World, New York Evening Post, New York Sun, St. Louis Post-Dispatch and Philadelphia Press. . . .

By the agreement of April 12, 1904, Mr. Pulitzer gave to the University securities to the cash value of $800,000, which the University received, and agreed that during the life of the donor it would from time to time pay to the donor a sum equal to the dividends and interest and income of the said securities. Both parties agreed that, except as above, the said securities were the absolute property of the University, and were accepted as being a payment by the donor according to the agreement of March 19, 1904.

In consequence of the recent death of Mr. Joseph Pulitzer and the obligation now resting upon the Trustees to go forward with the organization of a School of Journalism as planned and endowed by him, there was considerable informal discussion of the subject at the November meeting. Steps will be taken to carry forward the organization of the School and the erection of the necessary building as speedily as possible. A meeting of the advisory committee named by Mr. Pulitzer in his agreement with the University will probably be called during the next few weeks.

* * *

Undergraduate Admissions

The total number of those from the secondary schools who announced themselves as candidates for admission to Columbia College previous to the beginning of the college year was 529. Of these 151 took no formal steps during 1911 toward completing the entrance requirements; 157 tried but failed to complete the entrance requirements; 20 transferred their candidacy to other departments of the University; 22 became candidates for admission to other colleges; 198 were admitted, and 180 registered. In addition to these, 18 entered the freshman class from other colleges; 49 entered the higher classes from other colleges, and 12 non-matriculated students were admitted. The total number of new students admitted was 278, and the total number of new students who registered was 241.

The total number of those from the secondary schools who announced themselves as candidates for admission to the Schools of Mines, Engineering and Chemistry previous to the beginning of the college year was 393. Of these 117 took no formal steps during 1911 toward completing the entrance requirements; 98 were unsuccessful in their attempts to complete the entrance requirements; 20 transferred their candidacy to other departments of the University; 8 became candidates for admission to other colleges; 150 were admitted. In addition to these, 20 who were originally candidates for admission to other departments of the University were admitted. 160 new students registered in the first year class, 24 registered in the higher classes, and there were 7 non-matriculated students.

* * *

Report of Employment Committee

In the five months beginning June 1, and ending October 31, the work of the Committee on Employment for Students has been more successful than in any similar period since the committee was established. In this time a total of 648 positions of one sort or another was obtained for some 248 different students registered with the committee. In a similar period last year the committee filled 461 positions.

Exclusive of proctoring positions, of which there were 130 this year, as compared with 150 last year, a decrease of 13⅓ per cent., the committee filled 518 calls for tutors, companions, clerical assistants and the like, against 311 similar calls of last year. This is an increase of 70 per cent.

Although only a small proportion of the students has reported the earnings of the past summer, it is evident that the total earnings will be large. Already the committee has received from 123 students reports of earnings of $8,000, and an estimate of the amount earned by students who were recommended to positions by the committee and who have not yet reported, places the grand total of money earned with the committee's aid at about $15,000. The amount earned independently of the committee is about the same, so that the total earnings for the past summer will be more than $30,000. Last year the students reported earnings of $7,500 with the committee's aid.

On October 20 the decennial committee for the class of 1901 presented to the University the sum of $1,292.81, which is to establish "The class of 1901 decennial fund." By the terms of the gift the fund is to be invested by the trustees and the principal kept intact. The income is to be used in defraying the expenses, as far as possible, of the committee on employment for students. The class reserves the right to increase the fund.

* * *

Politics Laboratory

Through the generosity of Mr. Patrick F. McGowan, formerly president of the Board of Aldermen, a politics laboratory has been established in room 716, Hamilton Hall. In addition to newspapers and periodicals, there will be a large collection of materials relating to federal, state and local government. These materials will include the constitutions, statutes, election laws and legislative manuals of all the states; the *Congressional Record,* the *City Record,* the calendars of the Board of Aldermen and the Board of Estimate, digests of city charters, the monthly index of federal publications, the New York legislative index, departmental reports, reference works (such as Thorpe's federal and state constitutions), etc. The laws of Congress will be received in 'slip' form immediately after they receive the signature of the President. On certain subjects the materials will be fairly exhaustive. Thus Mr. A. C. Ludington has presented a complete collection of primary and election ballots; and the National Civil Service Reform League a collection covering their field. The laboratory will be used by the one hundred and fifty students who are taking the undergraduate courses in politics and by organizations outside the University, such as the association of the teachers of civics in the New York High Schools. The laboratory will be helpful to teachers because it will attempt to keep abreast of the most recent changes in both federal and state government. Dr. Sait, of the politics department, has organized the new laboratory and will supervise the collection of materials, as well as the advanced college courses in politics.

* * *

Courses in Agriculture

Three courses in agriculture are being offered this year by the University through its extension teaching. These courses may, with the approval of the committee on instruction, form part of the curriculum leading to the degree of bachelor of science for students in Columbia College. They are also open to students who desire to take courses in agriculture alone.

Course e 1–2 is conducted with a view to giving college students a clear idea of the fundamental problems in scientific agriculture and successful farming. The course is about equally divided among (1) soils and soil management, (2) field crops, (3) fruits and vegetables, (4) animal husbandry, and (5) farm management. A class of sixteen has registered for this course.

Course e 3–4 is conducted for business and professional men and women, and for college students who can not spare sufficient time for the longer course. To this end it consists of the principles of agriculture given in one lecture and one laboratory period on Saturdays throughout the college year. A class of twenty-two has formed for this work. This course and course e 1–2 are being given by Professor O. S. Morgan.

Course e 5 is a course of lectures given by sixteen agricultural specialists. At the present writing the program of lectures is all but completed. The following strong fields are represented: Three from the U. S. Department of Agriculture, three from the Pennsylvania State College of Agriculture, two from the New Jersey State College, three from the Cornell College of Agriculture, two from the Geneva Experiment Station, and one from the Maine Experiment Station. These men are able speakers as well as specialists in their chosen fields. The course will be of great value to all who in any way are interested in agriculture. It is to be given on Wednesdays, beginning November twenty-second, and is open as a course or as a partial course to students and the general public.

The Dramatic Museum

In the new Hall of Philosophy a large room has been reserved for the dramatic museum, which is to contain a collection of models of typical theaters, illustrating the development of the drama in different countries. The collection already contains a model of the long stage on which a mystery was acted at Valenciennes in the sixteenth century, and a model of the Palais Royal Theater, in which Molière's later comedies were produced. The latest and most important addition is the gift of Mr. Clarence Mackay. It was described last August in the London *Times:*

> A clever model of the Fortune Theater, which was built in 1600 in Golden-lane from the designs of Alleyn, the founder of Dulwich College, has been constructed by Mr. James P. Maginnis, A.M.I.C.E., and has been secured by Professor Brander Matthews for Columbia University.
>
> Apart from the fact that Shakspere himself is said to have acted in the Fortune Theater, the model is of much interest to the student of the drama of those days. The building was fashioned in the style of an Elizabethan inn, as a quadrangle with the center open to the air. Above the wide veranda which covers half the stage there is a higher story or "tower," red-tiled like the gabled roof that runs round the other three sides of the house over the three tiers of seats for the spectators. The tiers along each of the two side walls are divided into seven bays by wooden columns; at the back of the house there are eight bays, one of which is taken up by the staircase which mounts from the main entrance (the only one except the performers' door behind the stage), so that the general effect of the rows of box-like openings is very much the same as at Covent Garden Theater, except that the balconies are not built in a curve, but in severe straight lines. The outside walls are of plaster, pierced by a large number of latticed windows and broken by broad oak beams; the rest of the house was entirely built of wood.
>
> The stage, except for an opening in the center where the actors stood, is surrounded, like the front of the boxes, with a light balustrade, and reaches as nearly as possible half-way down the house, with a narrow passage on each side separating it from the end boxes. Each of these passages ends in a little staircase leading to a real *Romeo and Juliet* balcony across the back of the stage, under which there are three doors, right, center, and left.
>
> Mr. Maginnis has made his model from a plan prepared by Mr. William Archer and Mr. W. H. Godfrey from Alleyn's specifications preserved in the library of Dulwich College. It is therefore presumably accurate in every particular, as well as a fascinating specimen of the modeller's handicraft, and gives a perfect idea of what a Shaksperian theater was like. The only trouble is that Columbia University is just a little far off for those of Shakspere's own countrymen who might wish to see it. Perhaps some day the country may be able to afford a replica for London or Stratford.

The Paris *Temps* of August 2 contained the following item concerning the banquet given in honor of President Butler at the Ministry of Foreign Affairs in the Palais d'Orsay:

Dinner to President Butler

A brilliant dinner was given yesterday in honor of the president of Columbia University, Dr. Nicholas Murray Butler, who is sojourning in Paris. This banquet, at which the American ambassador, Mr. Bacon, was a guest, had been organized by the numerous French friends of the president, notably Senators d'Estournelles de Constant and Gaston Menier; Deputies Viviani and Ferdinand Buisson; Alfred Croiset, dean of the faculty of letters of the University of Paris; Gaston Darboux, perpetual secretary of the Academy of Sciences; Emile Boutroux, member of the Institute of France and director of the *Fondation Thiers;* Gustave Lanson, professor of literature at the Sorbonne; Charles Gide, Norman Angel, and others.

In a splendid address, President Butler emphasized the general movement which encourages Americans of today not merely to be satisfied with their present success, but to go back to their source, in order to thoroughly understand their European ancestors, among whom the French occupy so important a place. He congratulated himself on being able to come every year to Paris to receive inspiration from these noble sources and to meet the intellectual flower of France. He thanked especially the scholars and scientists of France, who, in all branches of human activity, continue to reveal the vitality of French genius and to unite the old world to the new by a cable that nothing will ever be able to sever.

Discrete allusions were also made to the signing of the pending treaty of arbitration between France and the United States. The brief addresses of MM. Boutroux, Croiset and Darboux, recalling the cordial receptions organized in their honor in the United States, were warmly applauded.

* * *

The President's Reception

On the afternoon of Thursday, October 26, the president of the University and Mrs. Butler tendered their annual reception to the newly appointed professors in Earl Hall. The reception was largely attended, and called renewed attention to the social value of this annual welcome to the University's new appointees. The new professors and administrative officers are the following: Charles Sears Baldwin, Ph.D., professor of rhetoric and English composition; Arthur H. Blanchard, A.M., professor of highway engineering; Virginia C. Gildersleeve, Ph.D., dean of Barnard College; R. A. Harper, Ph.D., Torrey professor of botany; Gustave Lanson, Litt.D., visiting French professor 1911–12; O. S. Morgan, Ph.D., professor of agriculture; Josef Schick, Ph.D., Kaiser Wilhelm professor, 1911–12; Alexander Smith, Ph.D., professor of chemistry; William G. Marquette, Ph.D., associate professor of botany; Eugene E. Agger, Ph.D., assistant professor of economics; Hal T. Beans, Ph.D., assistant professor of chemistry; Alon Bement, assistant professor of fine arts (Teachers College); Robert E. Chaddock, Ph. D., assistant professor of statistics; Grace Cornell, assistant professor of fine arts (Teachers College); Thomas B. Freas, Ph.D., assistant professor of chemistry; Willystine Goodsell, B.S., assistant professor of the history of education (Teachers College); Everett J. Hall, assistant professor of assaying; Charles A. Harriman, assistant professor of architecture; Milo B. Hillegas, assistant professor of elementary education (Teachers College); William H. Kilpatrick, A.M., assistant professor of the history of education (Teachers College); Edward F. Kern, Ph.D., assistant professor of metallurgy; A. Arthur Livingston, Ph.D., assistant professor of Romance languages and literatures; Warfield T. Longcope, M.D., assistant professor of the practice of medicine; Floyd J. Metzger, Ph.D., assistant professor of analytical chemistry; Samuel Osgood Miller, C.E., assistant professor of drawing; Harry L. Parr, Mech.E., assistant professor of mechanical engineering; Frank H. Pike, Ph.D., assistant professor of physiology; Robert L. Schuyler, Ph.D., assistant professor of history; Alvan A. Tenney, Ph.D., assistant professor of sociology; Charles W. Thomas, Mech.E., assistant professor of mechanical engineering; William H. Welker, Ph.D., assistant professor of biological chemistry; Frank A. Dickey, A.B., assistant registrar of the University; Katherine S. Doty, A.M., secretary of Barnard College; Frederick C. Hicks, M.A., LL.B., assistant librarian; Ethel Rather, Ph.D., director of women's religious work, and J. David Thompson, B.Sc., M.A., assistant librarian.

* * *

A New Kent Portrait

The Law Library has recently received an engraved portrait of Chancellor Kent, which has been hung in one of the alcoves of the Library. It is a gift from a member of the class of '79 Law, and it is hoped that other alumni will follow the example by presenting portraits of distinguished lawyers. Under the portrait is hung an autograph letter of Chancellor Kent, of which the following is a copy:

Albany, June 11--1821

Dear Sir

I arrived here yesterday from New York & found my Son at my House. I was very happy to see him, & to find him in good Health and Spirits, and much pleased with his residence at Kinderhook, and with the Society with which he associates, and above all with your course of Instruction. He showed me part of his compilation from your analysis of the Practice of the Supreme Court, & I was very much pleased with the clear, methodical and perfectly correct view of the Principles & rules of the practice which the analysis unfolds. I feel grateful for the Kindness you have showed in loco Parentis, & if I can but find that my son is ardent & accurate in research & cultivates at the same time & with equal ardor his moral & classical Taste, all my anxious Hopes will be fulfilled. I hope to have the Pleasure of visiting you before long, & in the meantime believe me to be

Yours very sincerely
JAMES KENT

Peter Van Schaick, Esq.

* * *

Professor of Highway Engineering

Arthur H. Blanchard, appointed professor of highway engineering at the June meeting of the trustees, was graduated from Brown University with the degree of C.E. in 1899. Three years later he received the degree of A.M. from Columbia University. Since graduation from Brown, Professor Blanchard has served as instructor (1899–1903), assistant professor (1903–1906), and associate professor (1906–1911) of civil engineering at his *alma mater,* having been in charge of all courses in highway and structural engineering. At various times between June, 1896, and May, 1903, Professor Blanchard was with the highway department, City Engineer's Office, Providence, R. I., the Berlin Iron Bridge Company, and the American Bridge Company. From 1903 to May, 1910, he was with the State Board of Public Roads of Rhode Island, first as assistant engineer and later as deputy engineer in charge of the construction and maintenance of bituminous surfaces and bituminous pavements. At present he is a consulting highway engineer and consulting engineer to the United States Office of Public Roads. Professor Blanchard is a contributor to various technical periodicals in this country and abroad and to the proceedings of various engineering societies in the United States, England, and France. He is the author, with Henry B. Drowne, of "Highway engineering as presented at the Second International Road Congress," and of "Bituminous surfaces and bituminous pavements." Professor Blanchard has been elected to the grade of member in the American Society of Civil Engineers and of *membre sociétaire titulaire* in the Société des Ingénieurs Civils de France.

New Secretary of Teachers College

Professor Clifford Brewster Upton, who has recently been appointed secretary of Teachers College, *vice* Clyde Furst, resigned, was graduated from the University of Michigan in 1902, and received the degree of master of arts from Columbia in 1907. He studied two years abroad at the Universities of Göttingen and Paris. He has been connected since 1902 with Teachers College, where he has held successively the positions of assistant, instructor, and assistant professor of mathematics. For several years he also directed the department of mathematics of the Horace Mann High School of Teachers College.

Professor Upton has been actively interested in all problems connected with the improvement of the teaching of his subject, and has recently taken a prominent part in the investigations of the International Commission on the Teaching of Mathematics. In connection with his new duties as secretary of Teachers College, he will continue his work in the department of mathematics.

* * *

Public Lectures

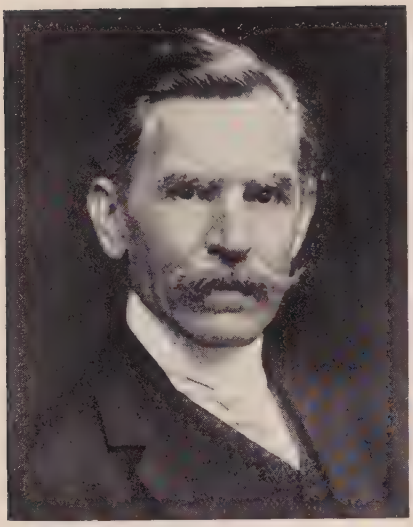
Under the auspices of the departments of botany and zoology, the twelfth series of biological lectures were delivered during October and November on "The modern principles of heredity" by W. L. Johannsen, M.D., professor of plant physiology in the University of Copenhagen. Professor Johannsen discussed the following problems: I—The problem of personal characters; II—The problem of unit factors; III—Problems of correlation and sex, and IV—The problem of new biotypes.

The James S. Carpentier lectures were delivered in October by the Rt. Hon. Sir Frederick Pollock, LL.D., D.C.L., honorary fellow of Corpus Christi College, Oxford, and Bencher of Lincoln's Inn. The subject of the series was "The genius of the common law." The individual lectures dealt with Our lady and her knights, The giant and the gods, Surrebutter Castle, Enemies in the gate, Rescue and ransom, Alliance and conquest, Perils of the market-place, and The perpetual quest. The Alumni Association of the Law School gave a reception to Sir Frederick Pollock in Kent Hall on October 10.

Gustave Lanson,* visiting French professor of French literature (1911–12), delivered his inaugural lecture on October 9, his subject being "La littérature française du dix-huitième siècle continue-t-elle

---

* For a biographical sketch of Professor Lanson see The Quarterly for June, 1911, pp. 330 f.



JOSEF SCHICK, Ph.D.
Kaiser Wilhelm Professor, 1911–12
see page 76

W. L. JOHANNSEN, M.D.
University of Copenhagen
see page 75

ARTHUR H. BLANCHARD, C.E., A.M.
Professor of Highway Engineering
see page 73

CLIFFORD B. UPTON, A.M.
Secretary, Teachers College
see page 74

ou contredit-elle celle du dix-septième?" The lecturer was listened to by a large audience.

Professor A. D. F. Hamlin delivered two illustrated lectures in the fine arts series on November 20 and 27. The first presented some "Observations on Turkish art" and the second discussed "The Classic and Gothic principles in architecture."

On November 15 and 16 two illustrated lectures were delivered by Albert H. Munsell, professor in the Massachusetts State Normal Art School, on "The relations of light, color and art."

* * *

Professor W. L. Johannsen

Professor W. L. Johannsen, who delivered the twelfth series of biological lectures this fall, completed his school education in Elsinore, Denmark, in 1873. After graduation from school he devoted himself for several years to practical chemistry and pharmacy, but soon became interested in biology. In 1881 he was appointed assistant in the Carlsberg laboratory, and studied later at the University of Tübingen. In 1892 he was appointed professor of plant physiology at the Royal Veterinary and Agricultural School in Copenhagen. In 1905 he was called to the professorship of plant physiology at the University of Copenhagen. Professor Johannsen's original work includes papers on several subjects in the field of vegetable physiology and on questions of heredity. His researches on the influence of anesthetics on plant life have attracted considerable attention. His method of forcing lilacs and other flowering shrubs by means of ether vapors has been adopted on an extensive scale in Europe, and his studies of "pure lines" have exercised a profound influence upon the conceptions of selection and heredity. Professor Johannsen holds the honorary degree of doctor of medicine from the University of Copenhagen, and received the Veitch Gold Medal from the English Royal Horticultural Society. He is to deliver the Lowell lectures in Boston in December.

* * *

The Carpentier Lecturer

Sir Frederick Pollock, Carpentier lecturer for the present academic year, is unquestionably at the present time the most distinguished law writer in the English speaking world. His preeminence is due to the fact that he possesses in marked degree the "legal mind." Coupled with this, he has the training and special capacity of the historian and he possesses a literary style singularly lucid and pleasing. All of the long list of publications which he has given to the world are important contributions to legal literature, and have added materially to the knowledge of legal theory and legal history. Especially noteworthy among them are the "History of English law" and the "Principles of torts": the first, as its name indicates, a legal history, the second primarily a book for the use of law students and practising lawyers. Of the history it has been said that the total result attained in the work surpasses all other efforts in this direction, and of the latter book, that in style, in knowledge of the subject and philosophical treatment of its material, it is doubtful if it has been equaled by any technical law book.

* * *

The Kaiser Wilhelm Professor

Professor Josef Schick, sixth Kaiser Wilhelm professor, is a native of Württemberg. He was educated at the grammar school of Rottenburg a/N., and the Obergymnasium at Ehingen, studied at the University of Tübingen and at the Polytechnic school at Stuttgart, and later spent some time in study in England. He took his Ph.D. degree at the University of Berlin in 1889, and became a docent of English philology in the University of Berlin in 1891. The succeeding year he went in the same capacity to the University of Bonn, and the year following he was called to a professorship at Heidelberg. Since 1896 he has held the chair of English philology in the University of Munich.

Professor Schick's earlier studies and publications were in the field of mathematics: "Grundlagen einer Isogonalzentrik," (1886), followed later by "Beziehungen zwischen Isogonalzentrik und Invariantentheorie, Barytomik, Isomorphopolzentrik, Pedale Katablematik, Trifolium Hiberniae." Besides minor publications he has brought out an edition of Lydgate's "Temple of glass" for the Early English Text Society, and two editions of Thomas Kyd's "Spanish tragedy" (one in English and one in German). He is now occupied in editing a Corpus Hamleticum, which is to collect all the material scattered in the world's literature on Shakspere's hero. The first volume, containing part of the story of Hamlet as exhibited in Oriental literature, in Indian, Iranian, Arabic, Turkish, Greek, Coptic and Abyssinian sources, is to appear shortly.

Professor Schick is giving a lecture course on "Heroes of old Teutonic poetry" and offering a seminar in English and general etymology. He is also delivering, under the auspices of the Deutsches Haus, a series of public lectures in German on Shakspere's tragedies.

Professor Schick delivered his inaugural lecture on "The origin of the Angles and their earliest traditions" before a large and enthusiastic audience on October 17.

* * *

Japanese Exchange Professor

Dr. Inazo Nitobe, who comes to Columbia as the first exchange professor under the arrangement with the Japanese government, has been called the most illustrious educator of Japan. Dr. Nitobe has a bachelor's degree from Johns Hopkins University and the degree of doctor of philosophy from the University of Halle. At the present time, he holds the chair on the policy of colonization at the First Imperial College of Japan (Tokyo), of which institution, the foremost university of Japan, he is also the president. He lectures at this University in November and December on the present conditions and problems of the new Japan, a subject on which he perhaps of all living men is best authorized to speak.

* * *

Professor Jacques Hadamard

Professor Jacques Hadamard, an account of whose lectures will be found in the notes of the department of mathematics, graduated from the Ecole Normale Supérieure at Paris. From 1890 to 1893 he served as professor at the Lycée Buffon in the same city. In 1892 he was awarded the degree of docteur ès sciences mathématiques by the University of Paris, and received in the same year the grand prize of mathematical sciences from the French Academy of Sciences at Paris. From 1893 to 1897 he was professor at the University of Bordeaux, and from 1897 to 1909 assistant professor at the University of Paris. During the latter period he taught also at the Collège de France, and has been professor of analytical and higher mechanics at the latter institution since 1909, as well as maître de conférences at the Ecole des Hautes Etudes. Besides the grand prize of mathematical sciences, Professor Hadamard has received seven other prizes from the French Academy of Sciences. Yale University conferred upon him the honorary degree of LL.D. in 1901, and the University of Göttingen awarded him an honorary Ph.D. degree in 1899.

* * *

Columbia Representatives

At the ceremonies held on October 5 and 6 in connection with the installation of the Rev. Guy Potter Benton as president of the University of Vermont, Columbia University was represented by Professors James R. Wheeler and John Dewey. An educational conference, held on the first day, was presided over by James F. Messenger, Ph.D. '03, head of the department of education of the University of Vermont.—Dean Gildersleeve represented the University at the inauguration of President Ellen Fitz Pendleton of Wellesley College, on October 19.—At the installation of President George Edgar Vincent, of the University of Minnesota, Columbia was represented by Professor F. J. E. Woodbridge, at the inauguration of Lemuel Herbert Murlin as president of Boston University on October 20 by Professor J. C. Egbert, and at the inauguration of Thomas Edward Hodges as president of West Virginia University by Jasper Newton Diehl, Ph.D.—Mr. O. H. P. La Farge served as Columbia's representative at the semi-centennial celebration of the University of Washington.—At the installation of Dr. Elmer Ellsworth Brown, former commissioner of education, as chancellor of New York University, President Butler and Dean Keppel served as Columbia's representatives. Dr. Butler was one of the speakers at the dinner given on the evening of November 9.—At the annual meeting of the Association of American Universities, held at the University of Chicago on October 26 and 27, the University was represented by Professors W. H. Carpenter and F. J. E. Woodbridge.

* * *

Columbia and the Legion of Honor

Frederick P. Keppel, dean of the College, was recently honored by an appointment as chevalier of the Legion of Honor. Other Columbia members of the Legion are President Nicholas Murray Butler, officier; Professor Brander Matthews, chevalier; Professor H. M. Howe, chevalier; Professor W. M. Sloane, chevalier; Professor Adolphe Cohn, chevalier; Professor Bashford Dean, chevalier; and Professor J. W. Alexander, chevalier.

THE LIBRARY

During the summer session the general library, the Bryson Library, the College study, the law library, the history reading room, and the music department reading room were open and largely attended. Also, through the kindness of Dr. Rockwell, the library of the Union Theological Seminary was kept open for the special benefit of students in the summer session. The total number of readers using the University reading rooms during the six weeks was 23,923. The general library has been kept open continuously, and during the period when the New York Public Library was being moved to its new building, the collections were much sought by those not connected with the University.

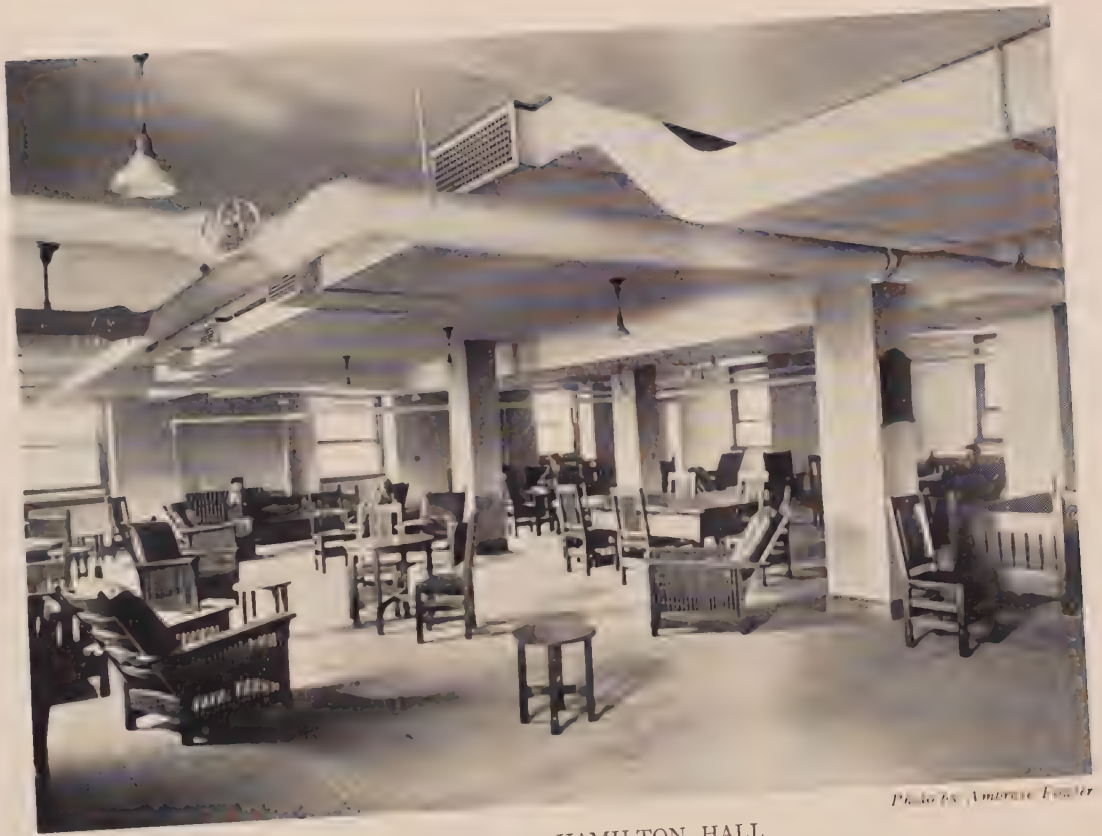


Photo by Ambrose Fowler

THE GEMOT—HAMILTON HALL

The relation of the University library to other libraries in the city is emphasized in a "Readers' manual" recently issued by the library. This pamphlet contains a map of New York City, showing libraries and transit routes, a list of libraries in New York City to which students have access, an analysis by subject of the collections in these libraries with special reference to the needs of graduate students, an explanation of the card catalogues and other bibliographical apparatus available in the University library, a plan of the campus, a list of the forty-one reading rooms of the University libraries with their location, and a summary of the library rules. This manual is primarily for the use of officers and students of the University, but it is hoped that incidentally it will do much to weld the libraries of the city together in a chain of service for scholars, students and general readers.

On September 28 two sessions of the New York State Library Association's convention were held in Earl Hall. The meetings were addressed by President Butler, Dr. Johnston, Professor Erskine, Dr. Richardson, librarian of Princeton University, and Mrs. Elmendorf, president of the American Library Association. About five hundred librarians from all parts of the state attended the meeting. On the same day, a meeting of the Special Libraries Association was held in Hamilton Hall. Miss Harriet Prescott, supervisor of the catalogue department, was secretary of the New York State Library Association for the year 1910–11.

The courses in library economy offered in the University summer session were attended by thirty-nine students, most of whom were librarians of considerable experience. Lectures were given by Andrew Keogh, reference librarian of Yale University, Mr. Ward of the Cleveland Public Library, and by members of the University library staff.

The following changes in the library staff have been made: Frederick C. Hicks, formerly superintendent of reading rooms, has been appointed assistant librarian; Miss Isadore Mudge, formerly librarian of Bryn Mawr College, has been appointed reference librarian; J. David Thompson, formerly chief of the documents division, Library of Congress, has been appointed law librarian; and Thomas P. Ayer, during the past year superintendent of the College study, has been appointed supervisor of the bindery department. Another appointment of interest to the University is that of Frederick W. Jenkins, formerly of Charles Scribners' Sons, to the librarianship of the Public Sociological Library.

SCHOOL OF LAW

The registration in the Law School for the academic year 1911–12 is as follows:

Third-year class	109
Second-year class	145
First-year class	166
Non-matriculated students	29
Total	449

This is an increase of 44 over the total registration for the academic year 1910–11, and of 91 over the total registration for the academic year 1909–10. With the registration which may be expected under normal conditions in February, the total registration of the School for the academic year will be considerably in excess of 450. The present registration is the largest since the School became a graduate school in 1904. The School reached its maximum enrollment in 1903, with a total registration of 461, that being the last year in which the undergraduates were admitted to the School. Of this total only 295 were college graduates, or had completed an education equivalent to a college course. The remaining 166 members of the School, with the exception of 22 college seniors who were taking the first year's course in law toward their college degree, had received only a high-school education. Of the present members of the School other than non-matriculated students, 376 hold college degrees or have had a training equivalent to a college course, and 40 are college seniors; of the 29 non-matriculated students, 7 have received the bachelor of laws degree from other law schools, and 13 have received the first academic degree, but for various reasons were unable to qualify as regularly matriculated students. Those non-matriculated students who have not received a college or law school degree have nevertheless successfully completed work equivalent to two years or more of college work, or have had experience specially qualifying them for the study of law. All of them are of mature age. Only four students were admitted under the new regulation permitting students to enter the School who have successfully completed a three years' college course, including satisfactory courses in English and American history and economics. These statistics demonstrate that the policy of placing the Law School on a graduate basis has been justified by its increase in numbers as well as by the better quality of the student body as a whole. The very fact that the School is made up so largely of college graduates makes it attractive to the best students, and it is therefore the hope of the faculty of law that few students will avail themselves of the opportunity afforded by the new regulation permitting candidates to enter the School after the successful completion of three years of college.

SCHOOL OF ARCHITECTURE

The School of Architecture reopened this year with a registration of new students somewhat smaller than usual, although the total registration has not greatly fallen off. Apparently the proportion of students registered last year who have returned is above the average, which is a healthy indication.

Mr. H. W. Corbett having retired from the directorship of the McKim Atelier, Mr. Francis A. Nelson, of the class of 1900, who for the last four years has been assisting in the Columbia Atelier, has been appointed associate in his place, in charge of the McKim Atelier.

Mr. Lucian E. Smith, '01, has been appointed to succeed Mr. Nelson in the Columbia Atelier, and Mr. Albert E. Flanagan, of '10, has been added to the staff of the School, to assist Professor Harriman in the department of drawing and elements of architecture.

Arrangements have been made, as the result of a conference held last April between representatives of several of the larger schools of architecture, for the holding of an interscholastic competition in design, each of the participating schools of architecture taking charge in rotation year by year of the conduct of the competition. It has been realized in an increasing degree by the heads of some of these schools, with regard to the competitions of the Society of Beaux-Arts Architects, that, admirably as they serve their purpose for draftsmen in the offices and for the younger practitioners who have spare time on their hands, their value as problems for the students in the great university schools is somewhat illusory. Indeed, in the opinion of some, the whole conception of the high value of competitions in design between the schools rests largely on mistaken assumptions, although others maintain with great earnestness that such competitions are invaluable. The present arrangement, the parties to which are the schools of architecture of Harvard University, the Mass. Institute of Technology, the University of Pennsylvania, Cornell University and Michigan University, is in the nature of a compromise. It aims to provide once a year for the students in the two upper grades of design an opportunity for comparing their work and having it criticized and judged by an impartial jury. The value of the stimulus of competition in works of architecture is well known, but it is capable of abuse. The present arrangement endeavors to restrict it to one contest each year, in order that the current work of the School may not be unduly interfered with and disturbed by the special excitement of an important competition. Generous prizes have been offered by Mr. Lloyd Warren (Columbia '91), which will add greatly to the zest of the competition. This will take place during the months of March and April, and after the drawings have been judged, probably either at New York or Philadelphia, a selection of the best from each school will be exhibited successively at each one of them. This arrangement does not, of course, prevent participation in the regular Beaux-Arts problems by any school which desires to engage in them.

This arrangement is really the outcome of a report to the American Institute of Architects four years ago by a special committee on schools of architecture. The following year efforts were initiated to bring about the establishment of a system of interscholastic competitions, but the results were not encouraging. This was due to various causes which need not be here enlarged upon. A year later a common problem in design was adopted by the schools of the University of Pennsylvania and Columbia University, and the comparison of results was interesting and instructive to both schools. There was, however, no prize offered in this case, and the experiment, successful as it was, has not been since repeated. The present arrangement is much more comprehensive and thoroughgoing.

The McKim fellowship in architecture was awarded to Mr. Wm C. Francis, of the class of 1907, who is on his way to Rome, where he will pursue his studies during the coming year. Mr. C. T. E. Dieterlen, his predecessor as incumbent of this fellowship, has recently returned from his two years of study abroad, and is exhibiting in the Avery Library an interesting display of measured drawings, restorations and water colors, the fruits of this study.

The Columbia fellowship in architecture, the incumbent of which is required to devote a year to graduate work in design, has been awarded to Mr. Wilbur N. Albertson, of the class of 1909. The competitive problem upon which this award was made had for its subject a monument to Lincoln on the circle in Potomac Park, Washington, D. C.

The new curriculum in landscape art leading to a professional certificate has been formally inaugurated by the giving of the first course of lectures on the "Theory and history of landscape design", by the honorary lecturers, Messrs. C. W. Leavitt, Jr., H. A. Caparn and F. Vitale, of the American Society of Landscape Architects.

TEACHERS COLLEGE

The registration shows an increase of from twelve to fifteen per cent. over last year's attendance. There are now in residence nearly two hundred more students than at the corresponding date last year. In the department of industrial arts the increase in attendance ranges from ten to one hundred and eighty per cent.

Teachers College is offering a new course on American education and social institutions to suit the needs of the increasing number of foreign students in the University. The course is intended to put these students in closer touch with the spirit and organization of American institutions than the regular courses have thus far been able to do. The lectures will be given by various members of the University staff and other experts in the special lines of interest under consideration, such as philanthropic and political organizations, courts and penal life, the press, hospitals, eleemosynary institutions, and the various types of school activity. Visits will be arranged to typical institutions in and around New York City.

In connection with the department of domestic art, the department of household chemistry is offering a special course in textile testing, which includes chemical and microscopical examinations of linen, cotton, silk, and woolen goods. Professor Woolman has organized a new course for the training of teachers in trade schools for girls. The department of mathematics is offering a new course on industrial mathematics. The schools of household and industrial arts are providing a series of fortnightly lectures devoted to problems in technical education; they are given by members of the faculty and visiting experts and promise much of interest and value in bringing to the students the larger problems of this field of activity.

The department of mathematics has added to its library a number of rare books and manuscripts collected by Professor David Eugene Smith last summer. Under the direction of Professor Smith nine reports on the teaching of mathematics in the United States have been issued as a part of the general work of the international commission on the teaching of mathematics. Professor Smith, as chairman of the American commission, is now preparing the general report on this work.

The department of secondary education purposes to secure during the winter an additional series of stenographic reports of high school lessons. The first set of these stenographic reports recently published in the Teachers College Record has been in great demand during the past year.

Professor McMurry of the department of elementary education is engaged as a member of the committee of inquiry into the efficiency of the public schools of New York City. His special subject for investigation is the character of the supervision of instruction by the principals of the city schools.

The educational museum of Teachers College has recently arranged a number of exhibits of unusual interest. In the spring an exhibit of penmanship was held, consisting of works from the collection of George A. Plimpton, Esq. On the occasion of the April meeting of the Association of Teachers of Mathematics of the Middle States and Maryland there was arranged a large mathematical exhibit. Students in the summer session had the opportunity of seeing a large set of charts illustrating the type of work in English done in the grades of the Horace Mann Elementary School. An exhibit of the elementary and high school work in art was also shown. The department of industrial arts exhibited material illustrating the development of several industries. An exhibit of toys arranged under the auspices of the Mothers' Club of the kindergarten department was opened in November.

Department of Astronomy

Much attention has been given to improving undergraduate instruction in astronomy, especially in the introductory College course now given by Professor Jacoby. Lectures are delivered separately at Columbia and at Barnard, and students must attend two hours fortnightly in the evening at the Wilde observatory. For this purpose the class is divided into four or five sections. Observatory meetings are held like class-room exercises, irrespective of weather. When the sky is clear the students study the heavens and learn the use of astronomical instruments; when the weather is unfavorable, informal questions and explanations are introduced, designed to clarify the subject matter of the regular formal lectures. Importance is attached to the fact that all work is here in charge of a single instructor: the professor, knowing exactly what he said in the lecture-room, can conduct a quiz section better than an assistant. The following table shows the attendance record during the last three years (the course is open to undergraduates only, and is elective):

	Columbia	Barnard	Total
1909–10	43	8	51
1910–11	67	13	80
1911–12	46	20	66

Strange to say, there is practically no attendance from Teachers College in astronomy. This is doubtless due to the fact that this subject is not generally taught in schools; yet it would seem that all school teachers should have knowledge of the simpler elementary facts and theories of the universe, and should explain them to children learning geography.

Graduate instruction in astronomy has been given as usual; but, as usual, only a very small number of students avail themselves of our facilities. This cannot be otherwise so long as the profession of astronomer continues to offer but few desirable paid positions.

On the research side, Columbia was well represented at the twelfth annual meeting of the astronomical society, held at Ottawa in August. Professor S. A. Mitchell, who has recently been made an honorary member of the astronomical society of Mexico, attended the Ottawa meeting, and presented preliminary results obtained earlier in the summer at the Yerkes observatory, where he had been research associate. These results indicate that the star 96 Herculis is a spectroscopic triple or perhaps quadruple system. The star is one of several under observation at the Yerkes observatory that have been suspected of a similar multiple character, and Professor Mitchell's results are the first to be made public.

Professor Jacoby was not present at the meeting, but he served with Pickering of Harvard and Russell of Princeton on the society's committee on photographic astrometry, which met at Columbia University last April under the presidency of Schlesinger of Allegheny. The committee recommended to the society, among other things, that the north and south polar points of the heavens be hereafter determined by means of "trail photographs" after the method developed by Jacoby, and published by the St. Petersburg Academy of Sciences. If carried into effect, this recommendation will make future sidereal astronomy of precision depend on this method.

Department of Botany

After a successful summer session, the work of the department opened this fall under especially favorable conditions. By transferring the library to 507, the old library room (508) has become available as a laboratory. This adjustment will temporarily relieve the pressure for laboratory space and will permit of a better distribution of the laboratory work. The department will now have a general laboratory and special ones for work in physiology, morphology, and cytology.

Of still more importance for the development of our work is the acquisition of a greenhouse. This building is now being erected on East Field and will contain in addition to the growing-rooms a laboratory for experimentation and research. The department has heretofore been in the anomalous position of being obliged to deal with plant life without adequate greenhouse facilities. No one thing could be of greater importance to our work than this acquisition, and these facilities, supplemented by those afforded by the New York Botanical Garden, have greatly strengthened our equipment.

The staff has been increased by the appointment of Robert Almer Harper as the Torrey research professor (see volume xiii, p. 463), and of William George Marquette as associate professor. The latter comes to Columbia from the University of Wisconsin. He received the degree of Ph.G. from Northwestern University in 1889, that of B.S. from the University of Wisconsin in 1903, and that of Ph.D. from the same institution in 1907.

DEPARTMENT OF CHEMISTRY

General

Professor Alexander Smith, administrative head of the department, has been elected to honorary membership in the Sociedad Española de Fisica y Quimica of Madrid, Spain, and also to honorary membership in the Chemical, Metallurgical and Mining Society of South Africa. As president of the American Chemical Society, Professor Smith presided at the Indianapolis meeting held in June.

Under the title "Trattato elementare di chemica inorganica," an Italian translation of Professor Smith's "Introduction to inorganic chemistry" has appeared. The Italian version is made by Professor Montemartini, of the Royal Polytechnic in Turin, and forms a substantial, well printed volume of nearly seven hundred pages.

William Cabler Moore gave instruction in general inorganic chemistry during the second term of the summer quarter at the University of Chicago.

Organic Laboratory

At the recent summer session the number of workers in the organic laboratory was the largest since the establishment of summer courses in organic chemistry. Mr. Michael Heidelberger, who received his Ph.D. last June in this department, served as assistant. An extension course in organic chemistry in charge of Dr. Neilson has been inaugurated this fall.

Harry Linn Fisher, A.M., resigned at the close of the academic year to accept the position of instructor in chemistry at the Cornell University Medical College. Mr. Frank Rose Elder, B.S., Amherst, 1911, has been appointed to the assistantship thus vacated.

Through the generosity of certain friends of the department, some changes have been made in the equipment of the laboratory which will materially increase its efficiency. The new tungsten lamps with which the laboratory has been provided give fine illumination and constitute a great improvement over the former method of lighting.

Laboratory of Quantitative Analysis

Three candidates for the Ph.D. degree and four candidates for the degree of master of arts are pursuing their major work in quantitative analysis. Dr. Metzger served as acting editor of the *Journal of Industrial and Engineering Chemistry* during the past summer. He has recently been appointed a member of the board of consulting experts of the Municipal Sewerage Commission. This commission is to undertake investigations in connection with the New York Harbor waters, and will pass upon analytical methods for the examination of these and other polluted water bodies.

Industrial and Engineering Chemistry

Professor M. C. Whitaker spent two months during the early summer studying the principal technical schools and industrial plants in Germany and England, partly with a view to comparing their methods and equipment with similar institutions in this country, and partly to gather detailed information in connection with the equipment of the new laboratory of industrial and engineering chemistry at Columbia. This laboratory will be installed in the basement floors of Havemeyer Hall in the space now being vacated by the assay laboratory, and will ultimately be extended to the laboratory now used by Columbia College students in general chemistry. When the industrial laboratory is completed it, together with the electrochemical laboratory, will occupy the entire ground floor of Havemeyer.

Dr. Kress spent the summer in studying American industrial plants. Arrangements were made whereby he was permitted to spend a week or ten days in the active manufacturing departments of each of those industries in which he specializes. This plan will be continued in future in order to keep instructors in more intimate touch with industrial development and industrial problems.

Laboratory of Electrochemistry

During the past winter investigations in nickel plating have been carried on by Dr. Easterbrook, and by Messrs. Easterbrook and Pfeiffer in the production of ozone by means of an apparatus furnished by the General Electric Co. H. C. Enders is engaged in an investigation of methods of depositing metallic chromium. Dr. Beckmann has conducted experiments in connection with his patent for the production of pure metals free from carbon in the electric furnace.

Professor Tucker, in conjunction with Dr. Moody, has completed his work on electric furnaces with calorite resistors, and also on the production of lithium carbide and its action with nitrogen.

Professor Tucker was elected one of the managers of the American Electrochemical Society, and was also appointed to the executive committee, electrochemical section, of the Twelfth International Congress of Applied Chemistry. During the summer he gained access to many important chemical and metallurgical plants in Germany and Austria. A close inspection of many of the electrochemical laboratories, both educational and private, was made and much valuable information obtained.

Physical Chemistry Laboratory

Mr. McAfee, Ph.D. 1911, is chief chemist of the Texas Oil Company at Bayonne, N. J.; Mr. Daghlian, Ph.D. 1911, is acting as instructor at Alfred University; Miss Sillcox, A.M. 1911, is an instructor in chemistry at Simmons College, Boston. At present there are four candidates for the Ph.D. and four for the A.M. degree in the laboratory, all working on portions of the general study of the weight of a falling drop and its relationship to other physical and chemical properties. One of the most interesting of the above investigations is the study of the drop weights of normal and pathological blood sera, for the purpose of following the effect of immunizing reactions—one of the most important questions of the general subject of immunochemistry.

Food Chemistry and Organic Analysis

The courses in food chemistry, both in the summer session and in the current academic year, show an encouraging increase in registration, especially of graduate students. Five such students have pursued the subject during consecutive summer sessions and this year completed the requirements for the master's degree by summer work alone.

The research work upon amylolytic enzymes, which has been in progress for some time in this branch of the department, has recently resulted in the preparation of an amylase of several times the activity of any previously described. The ultimate composition and reactions of this preparation are those of a typical protein. The investigation is being continued, as are those on the significance of certain relations in the ash constituents of foods, the quantitative reactions of typical aldehydes, and the relation of chemical composition to calorific power in fuels.

Professor Sherman was a member of the special committee on the publication of papers in agricultural and food chemistry which reported to the American Chemical Society at its summer meeting. He is also serving on the general committee for agricultural chemistry of the International Congress of Applied Chemistry, the National Commission on Milk Standards, the New York Milk Committee, and as reviewer of the chemistry of food and nutrition for the American Year Book.

Department of Economics

Professor Seligman attended the International Tax Conference which was held at Richmond, Va., during the first week of September, as a representative of the University as well as one of the three representatives of New York State. He was chairman of the committee to report on practical substitutes for the personal property tax and made the report for the committee.

A new and revised edition of "The social evil," originally published a decade ago by the Committee of Fifteen, is to be issued this winter by G. P. Putnam's Sons. The new edition is to appear under the editorial management of Professor Seligman, the secretary of the Committee of Fifteen.

Professor John Bates Clark has returned from Europe. His acceptance of the directorship of the division of economics and history in the new Carnegie Endowment for Peace will not cause him to withdraw from all his work at the University. On the contrary, he will continue to give a course in economics and will consult with the advanced students in the subject. Professor Clark presided at the Berne Conference in August, at which many prominent European scientists were present, and he is now busily engaged in formulating the schemes for active work. The French translation of Professor Clark's "Essentials of economic theory" appeared several months ago.

A German translation is under way, as is also an Italian translation of his "Distribution of wealth."

The commission on employers' liability and unemployment, of which Professor H. R. Seager was vice-chairman, concluded its labors in the late spring by presenting to the legislature three reports in addition to the one already presented on the employers' liability law. Of the bills accompanying these reports one, enlarging the force of the department of labor with a special view to the prevention of industrial accidents, has been passed by the legislature. The most important new position created by this act was that of superintendent of safety devices. To this position Mr. William Newell, a graduate of the Columbia engineering schools, was appointed by the commissioner of labor on October 1.

In September Professor H. R. Seager presided over the Chicago conference of the American Association for Labor Legislation, of which he is president. Representatives from all over the country attended the conference, the principal purpose of which was to discuss ways and means of carrying out the workmen's compensation and insurance laws passed by some eight of the states during the last legislative session.

The withdrawal of some of Professor Clark's courses has led to a shifting of the work of the department. Professors Seager and Simkhovitch will now give courses at Barnard, and Professor Robert E. Chaddock has been called from the University of Pennsylvania as assistant professor of statistics to aid Professor H. L. Moore in conducting the statistical laboratory. He will also give a course at Barnard. Professor Chaddock was appointed an instructor in sociology at the University of Pennsylvania in 1909, and an assistant professor in the same subject the following year. He received the degree of A.B. at Wooster College, Wooster, Ohio, in 1900, that of A.M. from Columbia University, in 1906, and that of Ph.D. from the same institution in 1908. He taught at Wooster College from 1900 to 1905 and held a university fellowship in sociology at Columbia in 1906–1907, serving as an honorary fellow the following year. From 1907 to 1909 he also acted as lecturer in economics at Columbia.

The work in Columbia College has been strengthened by the promotion of Dr. E. E. Agger to an assistant professorship and by the appointment of Dr. B. M. Anderson, Jr., as instructor. Professor Agger offers this year for the first time an undergraduate course on money and banking. These changes and additions bring the number of professors in the department of economics to eight.

In the summer session courses in economics were given by Professor Mussey of Columbia, Professor Meeker of Princeton, and Professor Hatfield of California.

DEPARTMENT OF ELECTRICAL ENGINEERING

During the summer the department of electrical engineering enlarged its laboratory equipment through the purchase of one 3 h. p., 220 volt series motor, one 3 h. p., 115 volt compound motor, one 1.5 K.W. field exciter, and several smaller machines for special experimental purposes. The instrument equipment was also enlarged through the purchase of six low range alternating current measuring instruments, several power factor meters, and one very sensitive D'Arsonval galvanometer.

Through the removal of Professor Pupin's office and laboratories to the new Philosophy Building, this department has acquired the use of rooms 205 and 206 Engineering. These rooms are to be utilized in expanding the electrical machinery laboratories. Room 206 will be used as an office for the instructors in charge of direct-current laboratory practice, as a departmental work-shop, and as an instrument store room. By the removal of the work-shop and its equipment from room 201, the overcrowding which existed there has been reduced, and the conditions under which the laboratory work is carried on have been materially improved. Room 205 will be employed as a test-room for some particularly advanced experiments performed by the members of the senior class in electrical engineering. The organization of an instrument store-room was very much needed by the department, as through its introduction a new method of instrument handling and distribution has been made possible.

The department tendered two courses in the summer school, the topics treated being the "Elements of electricity and magnetism" and the "Principles of dynamo-electric machinery." These courses were given by Professor W. I. Slichter and will be offered again next summer.

Professor Slichter has been preparing a reference book upon the design of direct and alternating current machinery, which will make its appearance first as the design section of an electrical handbook and then in separate book form. Professor Slichter has recently been appointed chairman of the editing board of the American Institute of Electrical Engineers and member of the examining board of the same organization.

Professor M. Arendt has been engaged in the conduct of a research on electric arc welding. He is also, in conjunction with Professor Crocker, engaged in a complete revision of the latter's two volume publication "Electric lighting." Professor Arendt has recently been appointed a member of the industrial power and electro-chemical committees of the American Institute of Electrical Engineers.

Professor J. H. Morecroft has been engaged in the rearrangement of laboratory machinery equipment made possible by the acquiring of new laboratory space. He has just published, in conjunction with Mr. Hehre, a text-book on the "Testing of electrical machinery" for use by non-electrical engineering students. He has been appointed a member of the electro-chemical committee of the American Institute of Electrical Engineers.

Mr. F. W. Hehre, instructor in electrical engineering in charge of the direct-current machinery laboratory, spent the summer on the test-floor of the General Electric Company at Schenectady.

Mr. F. L. Mason, formerly assistant in electrical engineering, has been appointed instructor and will continue in charge of the instrument laboratory. He spent the summer in the instrument laboratory of the General Electric Company at Schenectady.

Mr. F. R. Keller, a member of last year's senior class, has been appointed assistant in electrical engineering and will aid in the conduct of the work in the machinery laboratories.

Department of English and Comparative Literature

The present registration in the graduate courses shows an enrollment of five hundred and twenty-four in the twenty one courses and of fifty-two in the six seminars. It will be noted that this is an average registration of twenty-one students for each course. All of these courses and seminars are open only to graduate students. There are one hundred and seventy-one students taking English or comparative literature as a major and seventy-four taking it as a minor subject. The enrollment in the three English graduate courses in the summer session showed an attendance of one hundred and four students.

The following former students have been recently appointed to the positions stated: Albert C. Baird, graduate student, 1909–10, instructor, Dartmouth College; John G. Bowman, A.M. 1904, president, Iowa State University; Earl L. Bradsher, Ph.D. 1911, instructor, Dartmouth College; Charles A. Carroll, A.M. 1911, instructor, Cornell University; Victor L. O. Chittick, graduate student, 1908–11, instructor, State

University of Washington; George C. Clancy, graduate student, 1910–11, assistant professor, Beloit College; Oral S. Coad, A.M. 1911, instructor, Ohio Wesleyan University; Nellie M. DeCou, graduate student, 1908–11–12, principal, Fisher Avenue Public School, White Plains; Edward J. Erwin, A.M. 1907, instructor, DeWitt Clinton High School; Anna Eves, A.M. 1911, instructor, Penn Academy, Oskaloosa, Ia.; Marie H. Frary, A.M. 1911, head of English department, High School, Westchester, Pennsylvania; Will T. Hale, graduate student, 1910–11–12, instructor, extension teaching, Columbia University; Jay B. Hubbell, graduate student, 1909–11, head of English department, Columbus, Ga., High School; May Leland Hunt, Ph.D. 1911, instructor, University of Kansas; Falba Johnson, A.M. 1911, teacher of English and preceptress of girls, Lebanon Valley College; Charles L. Lewis, A.M. 1911, instructor, Robert College, Constantinople; Clara F. McIntyre, A.M. 1911, instructor, University of Kansas; Dudley H. Miles, Ph.D. 1911, instructor, DeWitt Clinton High School; Livy M. Miller, A.M. 1911, teacher of English, Semple Collegiate School, Louisville, Ky.; Frank A. Patterson, Ph.D. 1911, assistant professor, University of Illinois; Olive R. Peck, graduate student, 1910–11, instructor, Stoughton High School, Wisconsin; Max Ravitch, graduate student, 1910–11, instructor, Kansas State Agricultural College; Helen L. Reets, graduate student, 1910–11, teacher, Wasson School for Girls, San Antonio, Tex.; Nannie H. Rice, A.M. 1911, assistant, Mississippi State College for Women; Frank H. Ristine, Ph.D. 1910, instructor, Columbia College; Lillian K. Sabine, graduate student, 1910–11, instructor, Illinois State Normal School; Winifred Smith, A.M. 1907, instructor, Vassar College; Charles W. Snow, A.M. 1910, agent of the Government and teacher of Esquimaux Indians, Council, Alaska; John W. Taylor, A.M. 1905, instructor, University of Wisconsin; Rupert Taylor, Ph.D. 1911, instructor, Hebrew Technical Institute, New York City; Catherine S. Vance, A.M. 1911, instructor, James Milliken University, Decatur, Ill.; Carl Van Doren, Ph.D. 1911, instructor, Columbia College; Thomas H. Wade, A.M. 1909, instructor, University of Wisconsin; Frederica Warner, A.M. 1911, teacher, Ithaca High School; Allan F. Westcott, A.M. 1904, instructor, Naval Academy, Annapolis; Rollo L. deWilton, A.M. 1911, head of English department, Shattuck School, Faribault, Minn.; Samuel L. Wolff, LL.B. 1896, instructor, extension teaching, Columbia University.

Among recent publications by members of the department may be noted "Romeo and Juliet," the first volume to appear of the Tudor

Skakspere, edited by Professor Thorndike and Professor W. A. Neilson; "The overture and other poems," by Professor Fletcher; "Medieval story and the beginnings of the social ideals of English-speaking people," by Professor Lawrence.

Department of Geology

The field instruction to the students in the School of Mines and to the graduate students was given during the first week in June at Middletown, New York. The map of the United States Geological Survey covering the Goshen quadrangle was covered by the class, and will furnish the basis of the students' reports. The party consisted of fifty-two students and five officers. Later in the summer Professor Kemp undertook a study of the mineral springs at Saratoga; the investigation is to form a chapter in the forthcoming bulletin of the New York State Survey which will deal with the local geology.

Professor Grabau gave courses in the summer session, and afterward conducted a party of a dozen students for two or three weeks' work upon the strata of New York State. The party went up the Hudson, turned west at Albany, and terminated the trip at Buffalo and Niagara Falls.

Professor Berkey continued his work upon the Tarrytown and West Point sheets for the New York State Survey. He also did considerable work for the New York City Board of Water Supply. His bulletin on the "Geology of the new Catskill aqueduct" has been issued by the State Geologist and makes a volume of nearly three hundred pages, with many plates and cross-sections. It was written especially to bring out the applications of geology to an engineering problem of the first magnitude. As such, it has been warmly received by engineers all over the country and the volume has been in great demand. Professor Berkey also made a month's trip to Idaho during the summer, revisiting a district which is being studied by Mr. W. L. Barrows in connection with his dissertation.

Several changes have taken place in the staff of the department. Mr. J. E. Hyde, for several years assistant in paleontology, leaves to become assistant professor in the department of geology at Queens University, Kingston, Ontario. Mr. D. D. Condit, assistant in geology, takes up his work with the Ohio State Geological Survey. Dr. Elvira Wood, curator in paleontology, has received a call to a similar position at Harvard, and is succeeded by Dr. F. F. Hahn, who comes to us from the University of Munich.

Four graduate students of previous years received the Ph.D. degree in geology at the last Commencement: C. E. Gordon is professor of geology at the Massachusetts Agricultural College; Edwin Kirk is in the United States National Museum as paleontologist; F. C. Lincoln becomes assistant professor of mining in the University of Illinois; G. S. Rogers was appointed upon the United States Geological Survey, and has passed the summer mapping the coal seams along the borders of North Dakota and Montana.

Several interesting appointments have been received by students of the department who have been away from us for a year or two: Charles S. Stewart, for three years instructor at Cornell University, becomes professor of geology in the State University of Idaho, at Moscow; Victor Ziegler, A.M. 1910, who was instructor in the State College of Pennsylvania last year, has been called to an assistant professorship in the South Dakota School of Mines, at Rapid City; T. C. Brown, Ph.D. 1910, who has been teaching at Middlebury College, Vermont, for the last two years, becomes assistant professor of paleontology in the Pennsylvania State College.

Department of Germanic Languages

Professor William H. Carpenter delivered at the University of Berlin, on the evening of July 5, a lecture on "Some conditions of American education." The lecture was given under the immediate auspices of the English seminar of the University, the Amerika Institut and the Wheeler-Gesellschaft to an audience of students and invited guests. The lecture was repeated the following evening at the University of Leipzig, on the invitation of the Royal Saxon Kultus-Ministerium, before the students of the University, and was printed in its entirety in No. 30 (July 29, 1911) of the *Internationale Wochenschrift.*

At the meeting of the National Association of Collegiate Registrars, held at the Massachusetts Institute of Technology, August 7, Professor Hervey read a paper on "The proper delimitation of the functions of the registrar's office."

Professor Rudolf Tombo, Jr., has been placed in charge of the *Deutsches Haus,* an account of which will be given in a later issue. He completed during the summer an edition of Ludwig Salomon's "Geschichte einer Geige" (with Dr. R. Tombo, Sen.), which was published recently by Heath & Co., and an investigation on the variation in the orthography and inflection of English loan-words in German, which appeared in the October issue of *Modern Philology.* On

May 26 he delivered five addresses at various educational institutions in Pittsburgh, Pa., and on December 3 he delivered a sermon and an address at the U. S. Military Academy at West Point. During November and December he gave a series of lectures under the auspices of the Board of Education of New York City.

Professor A. F. J. Remy delivered an address before the Principals Association at the Hotel Astor on May 27. He also delivered five lectures before the Champlain Assembly of the Catholic Summer School, during the week of August 21, on the following subjects: The religious drama of the Middle Ages, The beast-epic, Heine, Wagner, Bismarck. Mr. A. O. Bechert spent the summer abroad, studying Germanic institutions. Dr. Haskell attended the summer semester of the University of Heidelberg.

The Deutscher Verein, by reason of increased attendance, is forced to seek new and larger quarters, negotiations being under way to secure an appropriate room in University Hall. The departmental club, formerly known as the Journal Club, has been rechristened the Germanic Club and its scope correspondingly widened.

The Macmillan Company published in October a "History of German civilization: A general survey," by Dr. Ernst Richard. The author's object has been to give a better understanding of German national personality and its expression in national life than has ever been possible before. To this end he describes the principal sources and currents out of which the German man and the German institutions of today have emerged.

Public lectures were delivered on October 6 by Rudolf Herzog on "Ueber Lebensbejahung und eigene Dichtung," and on November 6 by Rudolf Cronau on "Alt-Deutschlands Herrlichkeit und Neu-Deutschlands Grösse."

DEPARTMENT OF HISTORY

Professor Sloane, who was absent on leave during the past academic year, has resumed his courses in the graduate school. He has been appointed Theodore Roosevelt professor at the University of Berlin for the year 1912–13, and will deliver there a course of lectures on "The history of party government in the United States."—An important work entitled "A history of the ancient world" by Professor Botsford has recently been published by Macmillan.—The valuable "Historical atlas" upon which Professor Shepherd has been working for several years has been published by Henry Holt. In November

Professor Shepherd delivered a lecture on South America at Vassar College.—The distinguished Bohemian savant, Count Luetzow, will lecture under the auspices of the department in February. His lectures will deal with the history and culture of Bohemia.—Professor Robinson will be absent on leave during the second semester, and will spend the winter in Egypt and Greece. Professor Shotwell is absent on leave for the first semester.—Professors Robinson and Beard have in press a volume on the history of modern Europe covering the period from Louis XIV to the present.

The growth of the College is reflected in the increased registration in the undergraduate history courses, both prescribed and elective, and in the additional courses offered. This has made necessary the appointment of two new instructors. Mr. Edward F. Humphrey, who received his bachelor's degree at Minnesota and who has been pursuing graduate studies at Columbia and at the Sorbonne, is conducting several sections of History A, and is offering a new undergraduate course on Europe in the Middle Ages. Mr. Humphrey has had large experience as a teacher both in college and school. Mr. Joseph C. Green of Princeton, who has been specializing at Paris and Grenoble in modern history, is offering the laboratory course in contemporaneous history, and in addition is carrying several sections of History A. The elective courses offered by Professors Botsford, Dunning, Hayes, and Schuyler show a gratifying increase in attendance.

Professor Hayes lectured in the summer session at the University of Chicago, where he offered graduate courses on modern imperialism and contemporaneous history.

DEPARTMENT OF INDO-IRANIAN LANGUAGES

Professor Jackson returned this summer from a journey to India, which he revisited on invitation of the Parsis to lecture on subjects connected with their faith. He also traveled through Baluchistan, stopping on the return journey at Egypt, Athens and Constantinople. As a result of his visit to Bombay, the University has received from members of the Parsi community a gift of valuable manuscripts and books for the library.

A new volume by Professor Jackson, entitled "From Constantinople to the home of Omar Khayyam," was published by the Macmillan Company in November. It is an account of travel and research in Transcaucasia and Northern Persia, and supplements his earlier book, "Persia past and present."

The publication of "The Daśarūpa, a treatise on Hindu dramaturgy," by Dr. George C. O. Haas, adds another volume to the Indo-Iranian Series, published by the Columbia University Press. A translation of a Sanskrit romance, "Vāsavadattā," by Dr. Louis H. Gray, is now in the printers' hands and will appear shortly.

Dr. Yohannan's recent publication, "The vigil," has received favorable comment in the press.

At the last meeting of the American Oriental Society, Dr. Haas, former fellow in Indo-Iranian, was elected recording secretary.

Under the auspices of the department a public lecture was delivered on November 1 by a noted Parsi journalist, Rustom Rustomjee, editor of the *Oriental Review*, of Bombay, on "The Parsis, their history, manners, and customs."

DEPARTMENT OF LARYNGOLOGY

Professor Simpson was a delegate from the American Laryngological Association to the Triennial Congress of Laryngology and Rhinology, which was held in Berlin from August 30 to September 2. Dr. Frothingham presented a paper on "Four interesting cases of functional aphonia" at the meeting of the American Laryngological Association in Philadelphia in June. Dr. Thurber is secretary of the section on laryngology of the New York Academy of Medicine.

DEPARTMENT OF MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS

During the past year much has been done towards the improvement of the work in pharmacology. The arrangement of two lectures a week throughout the year, instead of concentrating most of the work in the first half-year when the students have not completed their work in physiology, is a fortunate one, and the increase in the number of quizzes to one for each lecture promises opportunity for better drilling. The element of uncertainty in biological experimentation is especially prominent in experimental pharmacology, where often the apparatus is far from ideal, the variability of the animals used is striking, and the skill of the students is limited. Under the direction of Dr. Lieb a great deal has been accomplished to lessen the chances of failure. The large kymograph for demonstrations has been improved in many details and it is now possible to obtain a continuous tracing about fifteen feet long. Mercurial manometers of unusual accuracy have been constructed. For the perfusion of the mammalian heart a rather elaborate apparatus has been devised, which eliminates many of the adventitious influences that tend to disturb the results of this delicate instrument. A motor-generator has been installed to supply a reliable electric current of low voltage to all the tables in place of the dry cells that were formerly used. A new apparatus for recording the outflow of liquids has been devised by Professor W. R. Williams, which makes it possible to give certain new demonstrations, including one on the action of drugs upon the blood vessels.

Professor Williams has given the following addresses: on "Vaccines in general practice," before the New Haven Medical Association in December, 1910; on "The relation of rheumatism and of meat to heart disease and Bright's disease," at a meeting at the New York Academy of Medicine under the joint auspices of the Hygiene Committee of the New York City Federation of Women's Clubs and of the Public Health Educational Committee of the Medical Society of the County of New York in January, 1911; and on "The effect of alcohol upon the functions of the body," before the National Conference of Charities and Correction in Boston in June, 1911. He has recently published in the American Journal of the Medical Sciences the results of his work on the vaccine treatment of pyorrhœa alveolaris.

In collaboration with Dr. Van Horne Norrie, Dr. Bastedo has published in the St. Luke's Hospital Medical and Surgical Report, an article on "Reversed rhythm of the heart, a digitalis manifestation hitherto unobserved in man." This was accompanied by a unique tracing which was one of a series of interesting tracings obtained at St. Luke's with the Jaquet sphygmocardiograph in a study of the effects of drugs of the digitalis group on the circulation in man. In April Dr. Bastedo delivered a lecture at the Academy of Medicine of Buffalo on "A study of heart-block with especial reference to its therapeutics." He also addressed the Students' Club on "The prescription, the proprietary remedy and the pure food and drugs act." In May he read a paper before the Medical Society of the County of New York, giving a comprehensive description with illustrative cases of a test for chronic appendicitis published by him in brief about two years ago. This paper has since been published in the American Journal of the Medical Sciences. He is now at work on his forthcoming book on pharmacology.

DEPARTMENT OF MATHEMATICS

On October 27 Professor Hawkes addressed the mathematical section of the State Teachers Association of Connecticut at New Haven on "The relations of the mathematics of the schools to that of the colleges"; and on December 2 he addressed the Association of Teachers of Mathematics of the Middle States and Maryland on "Educational values in mathematical study."

An address on "The spiritual significance of mathematics," prepared by Professor Keyser for a meeting of the department of colleges and universities of the Religious Education Association, held in February, 1911, is to be published in the December number of the Association's magazine *Religious Education,* and, subsequently, to be incorporated with similar addresses by others in a volume. In the summer session of the University of California, Professor Keyser gave two graduate courses, dealing respectively with the foundations of mathematics and with modern theories in geometry. In the course of his residence at Berkeley he delivered a public lecture on "Ways to pass the walls of the world."

During the month of October Dr. Jacques Hadamard, professor of analytical and higher mechanics in the Collège de France, delivered at Columbia two courses of lectures, one course in the "Calculus of variations," and one in "Partial differential equations of physics." Besides these Professor Hadamard delivered on Saturdays four general lectures, open to the public, dealing with mathematical and physical subjects. All of the lectures were well attended.

DEPARTMENT OF MECHANICAL ENGINEERING

The most important development of the year in the department of mechanical engineering is without doubt the establishment on a permanent paid basis of associate professors, presenting subjects which have become professional specialties and which have heretofore been treated by volunteer lecturers. Four such positions have been created, to which the following appointments have been made: "Elevating and conveying machinery," Mr. Lincoln De Groot Moss, for many years consulting engineer in mechanical handling problems and now engineer of the Robins Conveyor Co.; "Air-compressors, fans, air-transmission and compressed air apparatus," Mr. Frederick V. D. Longacre, engineer of the Ingersoll-Rand Co.; "Pumps, pumping engines and hydraulic machinery," Mr. Will J. Sando, consulting engineer and formerly head of the pump department of the Allis-Chalmers Co.; "Shop processes, machine tools and time study," Mr. F. A. Halsey, for many years editor of the *American Machinist*. Provision for these important subjects in this way will insure the highest class of authoritative presentation, which is necessary in these lines where progress is so rapid, that an ordinary professor whose entire time is devoted to teaching becomes hopelessly out of date in two or three years. It is confidently believed that this step is but the forerunner of a new era in engineering education, in which the instructing staff will consist of two separate groups of teachers. Each of the members of the regular professorial staff will, of course, present a specialty, but in addition these professors will present all elementary and general subjects, leaving to the experts the bulk of the subjects dealing with professional practice and in which proficiency is possible in only one.

The proof sheets of Professor Lucke's "Engineering thermodynamics" are being used this year by the students. Professor Rautenstrauch's "Analysis of machines" will be ready for publication next year.

For each member of last year's graduating class of twenty-four, there were about two and a half positions available.

Department of Metallurgy

The summer school in metallurgy consisted in part of a week's trip to the metallurgical plants in the vicinity of New York, a party of about twenty students under the supervision of Professors Campbell and Kern visiting the plants of the Nichols Copper Company at Laurel Hill, Long Island; the American Smelting and Refining Company, at Maurer, New Jersey; the U. S. Metals Refining Company, at Chrome, New Jersey, and the Balbach Smelting and Refining Company, at Newark, New Jersey. The remainder of the summer metallurgical work was conducted by the students in squads, metallurgical works throughout the west and middle west being visited.

During the summer Professor Walker, in company with Dean Goetze and Professor Whitaker, visited a number of universities and technical schools in Germany and Switzerland, especially those in Berlin, Dresden, Munich, Freiberg, Heidelberg, and Zurich. The party also visited several industrial and manufacturing establishments, including the Krupp works in Essen.

Professor Campbell was appointed a member of the committee on copper alloys in the International Association for Testing Materials.

During the summer he visited some of the leading iron and steel plants and the scientific laboratories of many of the schools of technology and the schools of mines in Germany, France, and England.

DEPARTMENT OF MUSIC

The number of students taking courses in this department is 138, showing a decrease over last year. This loss in enrollment is due to the change in the first history course, which is this year open to men only, and to a change in requirements for students in supervision of music in Teachers College. In the latter case the matter will adjust itself next year, while it is expected that a special course in history will be given in Barnard College to accommodate the large number of women students desiring to take it.

The usual series of chamber concerts and organ recitals will be given this winter, beginning January 9, 1912. There will be six organ recitals in all, two concerts by the University chorus, three string quartet concerts, a song recital, one piano recital by Professor Rubner, a recital for two pianos, two other chamber music concerts, and a concert of original compositions by students in the department of music.

Professor Mason completed during the summer a quartet for piano and strings, Op. 7, a pastorale for violin, clarinet and piano, Op. 8, and several violin pieces. He is giving several courses of lectures on music at the American Museum of Natural History, the Brooklyn Institute, etc.

DEPARTMENT OF ORTHOPEDIC SURGERY

Professor V. P. Gibney attended the annual meeting of the American Orthopedic Association in Cincinnati last summer and was elected president of the Association. Twenty-five years ago he served as its first president. Dr. Jaeger spent the summer abroad, visiting orthopedic hospitals and industrial schools for cripples in England, France, Denmark, and Sweden. He has been appointed consulting orthopedic surgeon to the dispensary of the German Hospital.

The work of the department shows a continued and steady increase, the room for mechanicotherapy being taxed to its utmost capacity. The number of patients has increased from 3341 in 1900 to over 12,000 during the present year—an increase of 350 per cent. That this is not merely a part of the general increase in the Vanderbilt Clinic is shown by comparative figures from other departments for the same number of years.

DEPARTMENT OF PATHOLOGY

In the early spring Professor MacCallum was appointed visiting pathologist of the Presbyterian Hospital and assumed the duties of director of the laboratory at the hospital. With the completion of the union of the medical school and the hospital further organization of the laboratory of the hospital has been carried out, and Professor Stewart and Dr. Hanes have been appointed associate visiting pathologists. Drs. Lamb and Soper have been appointed respectively resident and externe pathologist. Professor Larkin has been appointed to the City Hospital on Blackwell's Island.

The work of the laboratory at the College during the past spring has been concerned especially with the study of the heart under abnormal conditions, the hypertrophy of the heart and tissue growth in general, experimental studies of cancer, the growth of tissues *in vitro,* as well as many other subjects belonging more properly to problems of pathological anatomy. The publications resulting from this work will appear shortly in a volume of Proceedings of the Pathological Laboratory. Professor Stewart spent the summer in Berlin in the study of pathological anatomy, and Dr. Hanes in Munich studying pathological chemistry. The work for the present year has begun with the announcement of a course in experimental pathology to be given by Professor Stewart, and a course in pathological anatomy in diseases of children by Professor MacCallum. Otherwise the announcements of courses are the same as those for last year.

DEPARTMENT OF PHILOSOPHY

Professor Dewey gave in January 1911 a series of six lectures to the students of ethics at Smith College, on various problems connected with the psychology of the self and their bearing on ethical problems. In February he gave three lectures on the Harrison Foundation before the graduate students of the University of Pennsylvania, the subject being "The problem of truth." At the educational conference held in connection with the inaugural exercises of President Benton at the University of Vermont, he gave an address on "Present tendencies in collegiate education." He delivered the annual address at the class exercises of the Teachers College of the George Washington University, and the Commencement address at the Walnut Hill School in Cincinnati, early in June.—Professor Woodbridge delivered a public lecture at the University of Minnesota in October on "Greek philosophy."

At the April meeting of the New York Section of the American Psychological Association Professor Montague read a paper entitled, "Has psychology lost its mind?" in which was criticized the present movement to substitute behavior for consciousness as the object of psychological study. As a member of the committee on program and debate, he took part in formulating the question to be discussed at the coming annual meeting of the American Philosophical Association.

Department of Physical Education

The staff remains the same as last year, except that Mr. B. B. Foster succeeds Mr. T. B. Kirkpatrick, and Dr. Robert Fowler succeeds Dr. Dexter W. Draper. The latter has accepted the position of professor of physical education and director of athletics at Franklin and Marshall College.

The Gymnasium will be open three evenings a week until ten o'clock during the academic year, for students and alumni. Extension courses in physical education, boxing, and swimming will be given on those evenings. The students in physical education courses are enjoying outdoor exercise on South Field. The courses will be continued outdoors as long as the weather is favorable.

The new regulation making Physical Education B optional for College sophomores and second year Science students who obtained a grade of A or B in Physical Education A, is working very satisfactorily. More than half of the students who earned exemption from Physical Education B as a requirement have elected the course. The majority of the students who did not elect it are members of varsity teams.

Department of Physics

Professor George V. Wendell spent most of June visiting eleven of the most important universities and technical schools of the country and making a study of their methods of instruction in physics, particularly for engineering students. The information he obtained will prove of value not only in relation to the present curriculum in physics for our engineering students, but will bear also on the proposed revised "six year course."

The new laboratories for research in electricity and magnetism under Professor M. I. Pupin, which occupy the whole basement floor of the Philosophy building, are being equipped as rapidly as the work can be done. The cost of the equipment is borne by a gift to the

University of twenty thousand dollars for this purpose. It is purposed with this equipment to offer here unexcelled opportunities for research in fundamental problems of electricity and the applications of the theory of electrical circuits.

The establishment of Professor Pupin, formerly located in the Engineering building, in these new laboratories in a building adjacent to Fayerweather and connected with the latter by direct tunnel, and the designation by the trustees of Professor Pupin as director of the Phoenix Research Laboratories, marks an important unification of the department. In accordance with the resolution of the trustees the director of the Phoenix Research Laboratories is to be in general charge of, and responsible for, the development of the research work of the department of physics.

The departmental library of physics, organized less than two years ago, has proven of great service both to the members of the teaching staff and students. A gift has just been received through Dr. Trowbridge, the library representative of the department, of some handsome furniture for this room. The gift comes from the members of St. Anthony Hall. Representing the interest taken by a number of graduates and undergraduates, it is greatly appreciated by the department, and is particularly gratifying on account of the fact that the graduate students will now have a pleasant and attractive room in the physics building in which to read and study.

The laboratory for advanced experiments, adapted for the laboratory work of candidates for the master's degree and Ph.D. candidates in their first years, has been moved from very cramped quarters on the second floor to adequate rooms on the third floor, made available for physics by the removal of the English department in the summer. These laboratories form an important point of contact with graduate students, and especially with teachers in schools of the city, hence they need the best of equipment and will be developed as rapidly as possible. They provide a fitting place for the precision apparatus of the late Ernest Kempton Adams.

A statement relating to graduate work in physics, which aims to make clear the character and scope of the work which is required for the Ph.D. degree in physics at Columbia, was issued in the summer as the result of conferences of the department on the subject. The most important feature of this statement is the announcement of a minimum requirement of a definite list of courses in mathematical and experimental physics, which must be taken by all candidates for the Ph.D. degree in either experimental or mathematical physics.

Professor Percy Hodge has resigned an assistant professorship of mechanics to become professor and head of the department of physics in Stevens Institute of Technology. To carry on temporarily the work left by Professor Hodge, Mr. C. G. Simpson, formerly instructor in mathematics, University of Iowa, and extension teacher, Columbia, has been appointed associate in mechanics.

DEPARTMENT OF PHYSIOLOGY

During the past summer important changes were made in the physiological laboratories. Two additional operating rooms were partitioned off from the large laboratory; the demonstration room was divided into three private rooms for the officers of the department. The income of the Wheelock fund, which is now available for the first time, will be devoted to the uses of the library.

Professor Pike spent the summer at the Marine Biological Laboratory at Woods Hole; he was engaged partly in instruction, and partly in the investigation of the physiological relation of the labyrinth of the ear to the brain. Dr. Williams was in Europe during most of the summer, visiting laboratories, studying methods, and ordering new apparatus. Much of the apparatus has already arrived and is being installed. The most important addition consists of a very full outfit of appliances for the study of the heart by electrical methods.

Professor A. E. Guenther of the University of Nebraska has been granted a special fellowship in this department, and is at present engaged with Professor Lee in an investigation of the general physiological properties of the muscle of the diaphragm.

The new postgraduate course in clinical physiology, which was announced last spring, has been inaugurated, and is being taken by seventeen practitioners of medicine. It consists of a weekly exercise of two or three hours in length, devoted partly to a lecture and partly to demonstrations of the applications of physiological methods to the problems of clinical medicine, and is being given by Drs. Burton-Opitz, Pike, Emerson, and Williams. Some of the postgraduate courses of the department have been opened this year for the first time to women.

DEPARTMENT OF PRACTICE OF MEDICINE

In fulfillment of the agreement between Columbia University and the Presbyterian Hospital, Professor Theodore C. Janeway has been appointed visiting physician to the hospital and has resigned his position as attending physician to St. Luke's Hospital, the terms of the agreement providing that the professor of medicine shall hold no active hospital position outside of the Presbyterian Hospital. The generous recognition extended by the other medical members of the visiting staff of the Presbyterian Hospital as to the needs of the College has made it possible for Professor Janeway to organize the beginnings of a university medical clinic, with Professors Longcope and Bovaird and Doctors Carter and Mosenthal as the other members of the division staff. Professor Janeway has also been elected a member of the Board of Scientific Directors of the Rockefeller Institute for Medical Research; president of the American Society for the Advancement of Clinical Investigation for the year 1911–12; and alternate representative of the Association of American Physicians on the executive committee of the Congress of American Physicians and Surgeons. Professors Janeway and James, as members of the building committee of the Presbyterian Hospital, were abroad during the summer for the purpose of studying foreign hospitals and clinics. Professor Longcope and Dr. Hart have been appointed associate visiting physicians, and Doctors Carter and Mosenthal assistant visiting physicians to the Presbyterian Hospital. Dr. L. R. Williams has been appointed visiting physician to the City Hospital, and Dr. Frissell associate attending physician to St. Luke's Hospital. Dr. Edwards A. Park has been appointed pathologist to the New York Foundling Hospital.

UNIVERSITY LEGISLATION

The Trustees

October meeting.—The President reported the death on June 17, 1911, of Carlo Leonardo Speranza, A.M., professor of Italian.

The thanks of the Trustees were tendered to Mrs. Louis K. McClymonds for her gift of $1,300 for the maintenance, during the year 1911–12, of the Louis K. McClymonds scholarships in Columbia College; to the Germanistic Society of America for their gift of $1,200 for the maintenance of a lectureship on the history of German civilization for the year 1911–12; to Mrs. John I. Kane for her gift of $346.50 for the resetting of the bust of her father, the late William C. Schermerhorn; to Mr. James Loeb for his gift of $175 for the purchase of books in the Library; to the anonymous donor of the sum of $150 to provide a scholarship in the College for the academic year 1911–12; to the anonymous donor of the sum of $25 to be applied to a special scholarship in the College; to the anonymous donor of the sum of $25 to be applied toward a special scholarship in the College; to Mr. Richard H. Troy for his gift of $2, to be credited to the general income of the corporation; to the Westinghouse Air Brake Company for their gift of a chronograph and seconds clock for use in the mechanical engineering laboratory.

The committee on the sexennial catalogue, consisting of the clerk of the Trustees, the secretary of the University and the secretary of the Alumni Council, was appointed.

The report of the Vanderbilt Clinic for the year ending June 30, 1911, was presented.

The following representatives of the University were appointed: At the inauguration of the president of the University of Vermont, Professors Wheeler and Dewey; at the inauguration of the president of the University of Minnesota, Professor Woodbridge; at the inauguration of the president of Wellesley College, Dean Gildersleeve; at the annual meeting of the Association of American Universities, Professors Carpenter and Woodbridge.

The report of the treasurer for the fiscal year ending June 30, 1911, was presented.

The resignation of Percy Hodge, Ph.D., as assistant professor of mechanics, was accepted.

The following appointments were made: Charles G. Simpson, A.M., to be associate in mechanics; Thomas B. Freas, Ph.D., to be assistant professor of chemistry and curator of the Chandler Museum; Frederick C. Hicks, A.M., to be assistant librarian; J. David Thompson, A.M., to be assistant librarian; F. D. Fromme, C. A. Schwarze, and Edgar Altenburg, to be assistants in botany; William G. Marquette, Ph.D., to be associate professor of botany, and Lincoln DeGroot Moss and F. V. D. Longacre, to be associates in mechanical engineering. In Extension Teaching: O. S. Morgan, Ph.D., to be professor of agriculture; Gilbert Hindemeyer, architecture; Samuel Marion Tucker, English; William W. Stifler, optometry; Will T. Hale, English; Matthew G. Bach, German; William Milwitzky, Romance languages; Louis Welzmiller, *vice* R. S. Woodworth, optometry; Miss Arietta Snyder, education; John C. Frazee, *vice* Professor Hodge, architecture, and Milo B. Hillegas, education. On the nomination of Barnard College: Ethel Sturtevant, A.B., *vice* Alice Haskell, A.M., lecturer in English, and Georgiana Sanford, A.B., assistant in physics.

The following appointments were confirmed: Frank R. Elder, B.S., assistant in organic chemistry; Henry B. Drowne, C.E., instructor in highway engineering; Ernest H. Wright, Ph.D., instructor in English; Fritz Felix Hahn, Ph.D., curator in paleontology; Frank E. Ward, associate in music; Burton W. Kendall, S.B., instructor in experimental physics; Clement S. Brainin, A.B., William W.

Stifler, A.M., and John C. Frazee, A.B., assistants in physics; H. M. Bach, assistant in analytical chemistry, and John S. Bates, laboratory assistant in engineering chemistry. On the nomination of Teachers College: Clifford B. Upton, A.M., to be secretary of Teachers College. Also a number of appointments made for the summer session of 1911.

The following promotions were made: Bernard O. Dodge, Ph.D., assistant in botany, to be research assistant in botany, and Jesse E. Beans, assistant in drawing, to be instructor in drawing.

The following assignments were made: Thomas B. Freas, Ph.D., assistant professor of chemistry and curator of the Chandler Museum, to a seat in the faculty of applied science; William G. Marquette, Ph.D., associate professor of botany, to a seat in the faculty of pure science.

November meeting.—The invitation of the University of Athens to be represented on the occasion of the celebration of the seventy-fifth anniversary of its foundation, in April, 1912, was accepted.

The President presented extracts from the will of Joseph Pulitzer making provision for the establishment of the School of Journalism, and for the maintenance of the Pulitzer scholarships.

The President submitted his annual report, which was accepted and ordered to be distributed.

University privileges similar to those already extended to the students of other theological seminaries were extended to the students of the German Theological Seminary of Newark, N. J.

It was voted to remove the model of the University buildings to the vault of Kent Hall and to demolish the building containing the same.

An appropriation was made for the installation of such safety appliances as will give most effective protection against injury from machinery operated in any of the University buildings.

The thanks of the Trustees were tendered to Mrs. Lodema W. Devendorf for her gift of $6,500 to endow a scholarship in the College of Physicians and Surgeons; to Jacob H. Schiff for his gift of $2,000 to be applied to salaries in the department of social legislation; to the class of 1901 for its gift of $1,292.81 to constitute the Class of 1901 Decennial Fund, the income of which is to be applied to the maintenance of the work carried on by what is now known as the committee on employment for students; to Mrs. James W. Gerard for her gift of $1,000 for the maintenance of the Marcus Daly scholarship for the academic year 1911–12; to several anonymous donors of money for special scholarships in Columbia College; to Patrick F. McGowan for his gift of $100 toward the maintenance of a laboratory of politics in connection with the work of the department of public law; to Mrs. George F. Vietor for her gift of art objects for the furnishing and decoration of the Deutsches Haus, and to A. Kingsley Porter for his gift of photographs of architectural objects.

The following appointments were made: Robert S. Woodworth, Ph.D., junior professor of psychology, to be administrative head of the department; O. S. Morgan, Ph.D., to be professor of agriculture; Archibald M. Strong, M.D., to be assistant in medicine at Vanderbilt Clinic, from July 1, 1911, *vice* Arthur W. Swann, M.D., promoted; Edward C. Brenner, M.D., to be assistant in clinical medicine (Bellevue Hospital) from October 1, 1911; Russell L. Cecil, M.D., to be instructor in clinical medicine (Presbyterian Hospital) from October 1, 1911; John Bethune Stein, M.D., to be instructor in genito-urinary diseases from July 1, 1911, and Paul Monroe, Ph.D., professor of the history of education in Teachers College, to be a member of the administrative boards of the Summer Session and Extension Teaching for a term of two years from July 1, 1911. On the nomination of Barnard College: Mrs. Estelle H. Davis to be lecturer in English, and Louis Imbert, A.M., to be instructor in the Romance languages and literatures.

James C. Egbert, Ph.D., professor of Latin, Earl B. Lovell, C.E., professor of civil engineering, Henry C. Sherman, Ph.D., professor of food chemistry, Henry R. Mussey, Ph. D., Torrey professor of botany, Carlton C. Curtis, Ph.D., associate professor of botany,

O. S. Morgan, Ph.D., professor of agriculture, and A. S. Downing, Pd.D., first assistant commissioner of education for the State of New York, were constituted members of an administrative board on instruction and research in agriculture.

The following appointments were confirmed: Walter W. McKirahan, A.B., laboratory assistant in physical chemistry; Albert J. Salathe, A.B., laboratory assistant in inorganic chemistry; Wilbur D. Tupper, C.E., assistant in drawing (*vice* Jesse E. Beans, promoted); Paul C. Haesler, S.B., laboratory assistant in chemistry; Henry G. Hartman, A.B., lecturer in philosophy; Walter Henry Hall, conductor of the University Chorus, and Frederick A. Halsey, associate in mechanical engineering.

Arthur W. Swann, M.D., assistant in medicine (Vanderbilt Clinic) was promoted to be instructor in medicine.

Frank Henry Pike, M.D., assistant professor of physiology, was assigned to a seat in the faculty of pure science.

L. Emmett Holt, M.D., professor of the diseases of children, was granted a leave of absence from January 6, 1912, to the end of the academic year.

The following resignations were accepted: Frederick R. Hutton, Ph.D., emeritus professor of mechanical engineering, as representative of Columbia University on the board of trustees of Webb's Academy and Home for Shipbuilders; Allan F. Westcott, A.M., instructor in English, to take effect as of September 30, 1911.

UNIVERSITY COUNCIL

October meeting.—Professor Calvin Thomas was reelected secretary of the Council for the academic year 1911–12.

The president reported the following accessions to the membership of the Council, *ex-officio:*

From the faculty of political science—Professor Seligman, chairman, committee on instruction.

From the faculty of philosophy—Professor McCrea, chairman, committee on instruction.

From the faculty of Barnard College—Acting Provost Trent.

Also, the following elections for the term 1911–1914:

From the faculty of Columbia College—Professor Lord, reelected.

From the faculty of law—Professor Redfield, reelected.

From the faculty of medicine—Professor Starr, reelected.

From the faculty of applied science—Professor Alexander Smith.

From the faculty of political science—Professor Goodnow, reelected.

From the faculty of philosophy—Professor Woodbridge.

From the faculty of pure science—Professor Kemp, reelected.

From the faculty of fine arts—Professor Hamlin, reelected.

From the faculty of Teachers College—Professor E. L. Thorndike.

An offer of new courses in highway engineering, made possible by the gift of Charles H. Davis, Esq., was laid before the council by its executive committee, and it was on motion

Resolved, that the proposed courses in highway engineering, as offered by the department of civil engineering be accepted, subject to the approval of the faculty of pure science, as the major subject for the degree of master of arts.

Concurrent resolutions of the faculty of applied science and the faculty of Columbia College, with regard to a proposed six-year course leading to a professional degree in engineering, were laid before the Council, and it was on motion

Resolved, that the University Council concur in the proposed change in educational policy as to terms of admission to the schools under the faculty of applied science and graduation therefrom, and that the Council also approve the proposed combination of courses to be offered by the faculties of Columbia College and Applied Science in accordance with the change of policy aforesaid.

The secretary reported for record that since the last Commencement thirty-nine candidates for the degree of master of arts and eight candidates for the degree of doctor of philosophy had completed all the requirements for the degree sought and were entitled to receive diplomas.

The following report of the committee on the degree of doctor of law was adopted:

The committee of the University Council on the doctor of law degree, to which was referred also the matter of the master of laws degree, respectfully submits the following report and recommendation:

Pending action by the board of trustees on the request of the Council and of the faculties of law and political science that the board reconsider its action in disallowing the proposal to establish the degree of doctor of law, it seems to the committee desirable that the degree of master of laws be retained. It is, however, the opinion of the committee that the existing rules governing the award of this degree are unsatisfactory; and the committee recommends to the University Council and to the faculties of law and of political science that the existing regulations be rescinded and the following regulations substituted:

Any student who has graduated from an approved college or scientific school of collegiate rank, or who has successfully completed three years of undergraduate study in an approved college or scientific school, such course of study including satisfactory courses in economics and in English and American history, and who has also successfully completed three years of study in an approved law school, and who shall thereafter during one year of residence at Columbia University satisfactorily complete a course of study approved by the deans of the faculties of law and political science, shall be entitled to be recommended for the degree of master of laws.

(signed) Munroe Smith
H. F. Stone
Henry S. Redfield
Francis M. Burdick

Resolved, that the new rules governing the award of the degree of master of arts, which were suspended by action of the Council taken in April, 1911, shall take effect on July 1, 1912, and that the faculties concerned be notified accordingly.

NECROLOGY

Dillon, John Milton, LL.B. 1889, died in Far Hills, N. J., on September 2, 1911.

Dix, Edwin Asa, LL.B. 1884, died in New York City, on August 4, 1911.

Edson, Herman Aldrich, a member of the class of 1900, Science, died in New York City, on October 31, 1911.

Freeborn, George C., M.D. 1873, died in New York City, on November 2, 1911.

Goode, Edmund Lowry, E.M. 1901, died in Mexico City, on August 9, 1911.

Kirkland, Charles Pinckney, A.B. 1886, died in New London, Conn., on October 2, 1911.

Leo, Richard Leopold, Ph.B. (Arch.) 1895, died at Belle Harbor, L. I., on September 26, 1911.

McMahon, Percy H., A.B. 1873, LL.B. 1875, died suddenly while travelling through Arizona, on March 3, 1911.

Manierre, Alfred Lee, A.B. 1883, died in New York City, on October 1, 1911.

Pierrepont, Henry Evelyn, A.B. 1867, died in Brooklyn, on November 4, 1911.

Pierson, Stephen, M.D. 1869, died in Morristown, N. J., on August 11, 1911.

Potts, George Henry, a member of the class of 1904, College, died in New York City, on November 2, 1911.

Saxe, George Alexander De Santos, A.B. 1894, M.D. 1898, died in New York City, on September 10, 1911.

Smith, Samuel Ernest, A.M. 1910, died in Pittsburgh, Pa., on July 22, 1911.

Sturgis, Danford Newton Barney, a member of the class of 1888, Science, died in New York City, in August, 1911.

Suydam, Colonel Charles Crooke, A.B. 1856, died in Elizabeth, N. J., on November 9, 1911, aged seventy-five years.

Trapp, John J., LL.B. 1888, died at the Bayside Infirmary, Long Island, on October 16, 1911.

Trott, John C., C.E. 1909, was drowned in Lake Minnetonka, Minn., on June 12, 1911.

Students registered in:	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Columbia College	485	493	527	557	606	609	645	632	729	757
Freshmen	157	119	145	157	160	133	171	195	271	276
Sophomores	85	111	113	130	156	168	135	172	206	204
Juniors	128	112	117	112	128	141	151	108	118	122
Seniors	70	110	106	113	111	111	120	109	100	132
Non-matriculated	45	41	46	45	51	56	68	48	34	23
Barnard College	345	399	363	371	398	420	467	513	521	607
Freshmen	92	101	110	103	112	122	139	176	167	207
Sophomores	79	74	75	95	89	92	113	110	114	125
Juniors	73	81	70	77	109	115	108	121	144	152
Seniors	49	77	83	81	64	58	66	61	53	72
Non-matriculated	52	66	25	15	24	33	41	45	43	51
Total undergraduates	830	892	890	928	1004	1029	1112	1145	1250	1364
Faculty of Political Science	150	143	148	174	177	210	239	251	316	348
Faculty of Philosophy	317	382	392	490	492	532	556	573	658	705
Faculty of Pure Science	57	95	160	140	139	155	158	167	193	217
Auditors	23	17	9	—	—	—	—	—	—	—
Total non-professional graduate students	547	637	709	804	808	897	953	991	1167	1270
Schools of Mines, Engin'g and Chem.	685	719	589	566	524	585	677	666	713	652
First-year	222	177	156	140	137	186	211	220	186	181
Second-year	184	226	164	198	158	189	237	212	205	145
Third-year	149	146	156	112	118	123	125	146	171	183
Fourth-year	87	104	85	94	87	64	85	68	140	133
Non-matriculated	38	53	28	22	24	23	19	20	11	10
Graduates	5	13	*	*	*	*	*	*	*	*
Fine Arts			109	139	112	147	156	153	176	149
Architecture	†	†	74	107	87	123	131	128	155	130
Music	‡	‡	35	32	25	24	25	25	21	19
Law School	468	384	342	277	261	247	318	318	365	410
First-year	182	104	106	70	92	85	112	100	132	126
Second-year	135	149	98	107	69	83	102	113	115	145
Third-year	129	119	127	92	85	59	76	92	92	109
Non-matriculated	22	12	11	8	15	20	28	13	26	30
Medical School	777	669	560	424	352	298	306	307	316	346
First-year	203	107	97	79	86	60	84	85	74	66
Second-year	205	164	106	83	80	67	59	72	78	62
Third-year	181	101	156	100	79	76	72	68	90	106
Fourth-year	171	178	190	152	96	80	82	70	71	91
Non-matriculated	17	29	11	10	11	15	9	12	3	21
College of Pharmacy			435	353	254	229	284	290	283	288
First-year			261	97	107	120	163	156	146	164
Second-year			157	232	106	90	112	123	131	116
Graduates			17	24	41	2	5	7	6	8
Non-matriculated			—	—	—	17	4	4	—	—
Teachers College	563	624	640	792	726	891	950	974	1406	1476
First-year	43	29	29	24	—	—	—	—	—	—
Second-year	21	46	44	51	43	—	—	—	—	—
Third-year	155	201	237	308	273	314	353	373	473	454
Fourth-year	145	174	195	236	239	314	309	314	445	507
Non-matriculated	54	40	23	32	22	40	72	93	258	229
Graduates	83	95	99	141	149	182	216	194	230	286
Auditors and unclassified students	62	39	13	—	—	—	—	—	—	—
Total professional students	2493	2396	2675	2551	2229	2356	2691	2708	3259	3321
Double registration ‖	120	189	218	266	155	182	216	194	230	286
Net total resident students	3750	3736	4056	4017	3886	4100	4540	4650	5446	5669
Summer Session	643	1001	961	1018	1041	1392	1532	1968	2632	2973
Double registration §	91	180	184	280	277	336	395	486	667	704
Grand total regular students	4302	4557	4833	4755	4650	5156	5677	6132	7411	7938
Students in extension courses ††	535	732	684	964	1017	3055	2879	2250	699	1149**
Special students at Teachers College	—	—	—	—	—	—	—	—	1121	1255
Officers	473	509	551	573	571	646	655	687	726	763

In addition there are this year 1055 pupils in the Horace Mann School and 200 in the Speyer School.

* Graduate students in applied science are now registered under the faculty of pure science.

† Students in architecture are included under mines, engineering and chemistry previous to 1904.

‡ Students in music are included under Barnard College (non-matriculated) previous to 1904.

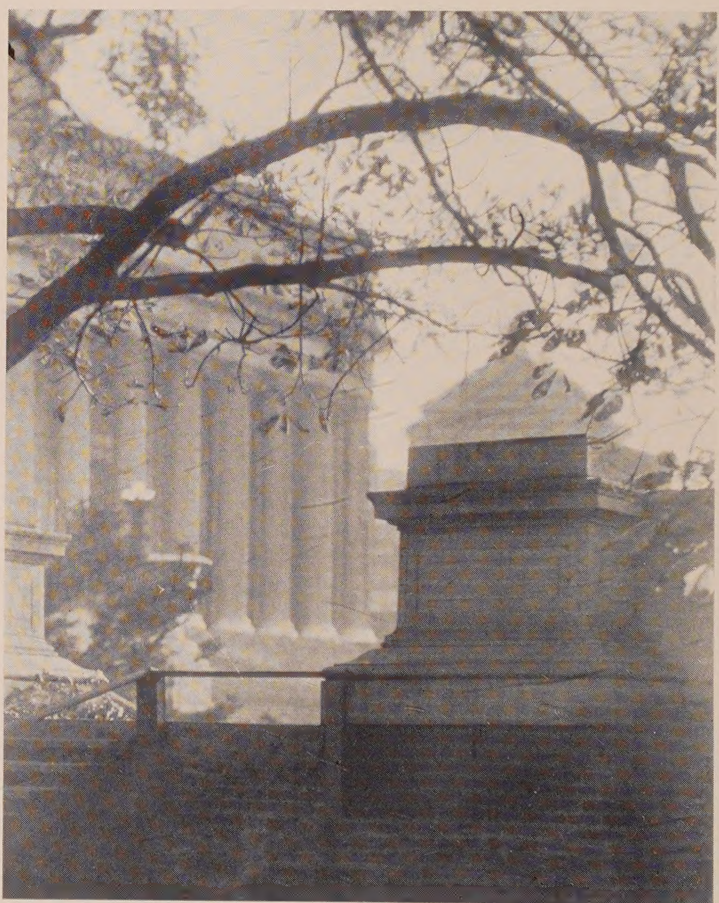
‖ Includes candidates for University and Teachers College degrees.

§ Includes Summer Session students who returned for work in the fall.

** Including 138 also registered in one of the above schools.

†† Including, prior to 1910, those now classified as special students in Teachers College.

It should be noted that the figures for Columbia College in 1909, 1910, and 1911 are based on the technical classification of students and not on the actual year of residence. The same is true of the figures for the Schools of Mines, Engineering and Chemistry for the years 1907, 1908, and 1909, but not for 1910 and 1911.



THE LIBRARY FROM THE FACULTY CLUB

© *Karl Struss*